

**PREDICTING PSYCHOLOGICAL DISTRESS IN AN AT-RISK YOUTH
SAMPLE: IS SELF-COMPASSION A MEDIATING VARIABLE?**

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Abstract

Evidence of psychological distress among at-risk youth has been well documented. Although research has focused on risk factors for homelessness, little research has examined predictors of psychological distress. There has been very little research on attachment in at-risk youth samples, and no research on self-compassion in these samples exists. It is important to understand factors that predict psychological distress in this population in order to develop targeted interventions, supports, and programming. The present study examined the predictors of psychological distress (attachment anxiety, attachment avoidance, childhood maltreatment, self-compassion) in an at-risk youth sample. Data were collected from 51 youth (31 males, 20 females) aged 17-24, recruited from a community organization providing support and services to at-risk youth in St. John's, Newfoundland and Labrador. Results revealed that the youth sample had significantly lower levels of self-compassion than a published sample of college students of a similar age. After controlling for sex, childhood maltreatment and attachment anxiety predicted psychological distress over and above other variables. Self-compassion and attachment avoidance did not account for any additional variance in predicting psychological distress. Self-compassion did not mediate the relationship between childhood maltreatment and psychological distress, nor did it mediate the relationship between attachment orientation (attachment anxiety and attachment avoidance) and psychological distress. Implications of the present study findings are discussed, as well as study strengths, limitations, and suggestions for future research.

Keywords: at-risk youth, psychological distress, self-compassion, attachment, childhood maltreatment

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Predicting psychological distress in an at-risk youth sample:

Is self-compassion a mediating variable?

The number of youth who are at-risk for homelessness continues to increase in Canada, with current annual estimates showing 35,000 youth who are without a stable place to call home (Gaetz, O’Grady, Kidd, & Schwan, 2016; Homeless Hub, 2016). The psychological experience of these youth remains under-researched. In addition to the normal developmental tasks of adolescence, these youth face an increased incidence of breakdown within the family system, and high rates of negative experiences with primary caregivers (e.g., attachment insecurity and maltreatment). As a result, these youth also face an increased risk for the development of poor psychological functioning or psychopathology (Craig & Hodgson, 2000; Hodgson, Shelton, van den Bree & Los, 2013; Kessler et al., 2010, Raising the Roof, 2009; Wolfe, Toro & McCaskill, 1999). In order to understand what distinguishes youth who develop healthy psychological functioning and a healthy sense of self from those who do not, it is important to understand the factors that may contribute to the youths’ psychological distress. This understanding is crucial to the development of targeted interventions, supports, and programming; the current research examined these predictors of psychological distress in an at-risk youth sample.

An additional interest of the current research is the role of self-compassion in mediating youths’ psychological distress. To date, the concept of self-compassion appears to be a relevant construct in enhancing the relationship with one’s self, as it encourages providing care to the self, and holding one’s feelings of pain with warmth and concern (Neff, 2003a; Neff, 2003b). High self-compassion has been documented to positively impact psychological health, and mediate the relationships between both attachment

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orientation (i.e., attachment anxiety and attachment avoidance) and psychological functioning, and between childhood maltreatment and psychological functioning (Neff & McGehee, 2010; Neff, Rude & Kirkpatrick, 2007; MacBeth & Gumley, 2012; Vettese, Dyer, Li, & Wekerle, 2011). Previous studies on self-compassion have focused primarily on college student samples (MacBeth & Gumley, 2012), and therefore lack the ability to generalize their findings to vulnerable populations, such as at-risk, street-involved or homeless youth. The current study was designed to address this gap in the literature, in order to highlight predictors of psychological distress in an at-risk and street-involved youth population, and to illuminate potential intervening factors of psychological distress, such as self-compassion.

By gaining a preliminary understanding of the experiences and struggles leading to psychological distress, supportive community interventions focusing on the individual's relationship with the self can be developed. By creating research-informed interventions for this complex population, it may be possible to help these youth untangle the multiple psychological and emotional challenges that they face on a daily basis. This research directs the attention of researchers to the experiences of at-risk youth, aiming to motivate additional research in the area, and to promote the examination of services for at-risk and street-involved youth populations.

In the following sections, a concise overview of previous research on the current study variables—psychological distress, attachment, childhood maltreatment, and self-compassion—is provided. Attachment orientations and childhood maltreatment were examined as independent variables in the current study due to their documented relevance to the experience of at-risk youth in previous research (Wolfe et al., 1999; Tavecchio,

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Thomeer, & Meeus, 1999). The manner in which self-compassion has been associated with the above psychological variables in predicting psychological well-being in the research literature will then be reviewed, followed by research examining self-compassion as a mediating variable between attachment, childhood maltreatment, and psychological distress. The current study's hypotheses regarding the relevance of self-compassion to at-risk youth populations will be highlighted.

Defining At-risk Youth

The literature often terms “at-risk youth” as youth who lack stable housing, have a history of maltreatment, engage in substance use or have mental health problems, and are no longer involved in child welfare (Osgood, Foster, Flanagan, & Ruth, 2005). Several other terms have been used interchangeably to describe this population, including ‘homeless youth’, or ‘street-involved youth’. In general, “youth homelessness” refers to youth who are homeless and lacking a permanent residence, at-risk (or on the margins) of homeless, or caught in a cycle of homelessness (Raising the Roof, 2009). It is important to highlight that the majority of homeless youth do not actually live on the street, but are instead part of the ‘hidden homeless’ population, which includes individuals who cyclically reside either with friends, family, or in shelters (Raising the Roof, 2009). The terms “at-risk” and “street-involved” are used to describe the current sample.

Evidence of Psychological Distress in At-risk Youth

Statistics indicate that seventy percent of mental health issues begin during childhood or adolescence (Government of Canada, 2006), and that youth (aged 15 to 24) are more likely to experience mental illness and/or substance abuse than any other age group (Pearson, Janz, & Ali, 2013). Eckersley (2011) employed a transdisciplinary

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synthesis to analyse a wide range of evidence on youth health and well-being, which observed that several factors contributed to a notable increase in the rates of mental illness. This study noted that factors explaining this increase included changes in the family environment, elevated use of technology, a rise in drug and alcohol use, poor nutrition, and changes in behaviour, such as heightened levels of neuroticism and narcissism. Eckersley (2011) stated that the increase in mental illness among youth is worsened by social inequality and disadvantage. This is reflected in the Canadian statistics on mental illness, as youth with lower socio-economic statuses are three to four times more likely than those in the highest income group to report poor to fair mental health (Mawani & Gilmour, 2010). Studies in several Canadian cities have also indicated that between 23% and 67% of homeless youth report having a mental illness (Canadian Institute for Health Information, 2007), and that their experience of mental illness is 2.5 to 5 times higher than the youth national average (Homeless Hub, 2016).

Evidence of poor psychological well-being among at-risk and street-involved youth has been well documented (Buckner & Bassuk, 1997; Kidd, 2003; Whitbeck et al., 2000). At-risk and street-involved youth report high rates of mental health issues, including drug use (Whitbeck et al., 2004), internalizing and externalizing disorders (Hughes et al., 2010), and suicidality (Kidd, 2004). Studies have also documented frequent experiences of major depressive disorder, post-traumatic stress disorder, and substance abuse in homeless and runaway youth (Fietal, Margetson, Chamas, & Lipman, 1992; Hughes et al., 2010; Rhode, Noell, Ochs, & Seeley, 2001; Thompson, 2005; Whitbeck et al., 2004). In fact, one Canadian study reported prevalence rates approaching 50% for at-risk and street-involved youth meeting the criteria for mental health disorders

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and/or drug addiction (Hughes et al., 2010). The increased stressors these youth experience as a consequence of their living situations and housing instability place them at an even greater risk for both physical and mental health issues (Hodgson et al., 2013).

In addition to the evidence supporting increased stressors in homeless youth and its correlation with decreased psychological functioning, it has also been shown that poor psychological functioning can act as a precursor to youth homelessness. A study published by Fowler, Toro and Miles (2009) examined housing problems among youth leaving the care of child protection over a 2-year follow-up period. Findings from this research indicated that youth who experienced emotional or behavioural difficulties, physical and sexual victimization, criminal conviction, and/or discontinuation of secondary school, were more likely to have unstable housing trajectories, or to have experienced homelessness two years later (Fowler et al., 2009).

A systematic review of studies examining psychiatric issues in homeless youth was recently conducted by Hodgson and colleagues (2013). This review included 46 articles published over 12 years (2000-2012). Results indicated that in all studies that used a full psychiatric assessment, the prevalence of any psychiatric disorder ranged from 48% to 98%. These findings suggest the existence of a reciprocal relationship where psychological illness precedes homelessness, and prolongs the experience of homelessness (Hodgson et al., 2013). For instance, one reviewed study found that youth who reported a psychological illness before experiencing homelessness tended to develop additional psychological difficulties, addictions, or criminal behaviours after becoming homeless (Martijn & Sharpe, 2006).

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The role of psychological distress in the enhancement of problems individuals face in the homeless community is multifaceted. McCay and colleagues (2010) examined the experiences of seventy homeless youth in Toronto, using a mixed-method design (i.e., quantitative questionnaires and focus groups). Their results showed that one-third of participants reported a mental illness, such as depression, bipolar disorder, or an anxiety disorder. High rates of suicidal ideation, self-harm behaviors, and the abuse of alcohol and other substances were also reported. McCay et al. (2010) also found that participants described their mental illness as one of their greatest challenges while living on the street. Specifically, participants reported worrying about having the strength to cope with the perils they faced on the street, and about being able to develop supportive relationships (McCay et al., 2010). This is a key study in the research focusing on at-risk youth, as it used well-validated measures for quantitative analysis (the Symptom Checklist-Revised, the Juvenile Victimization Questionnaire, and the Beck Hopelessness Scale), as well as a multi-method approach to strengthen their findings. Even though the study has these methodological strengths, the results may not be generalizable to smaller community centres in less diverse cities (e.g., St. John's, Newfoundland and Labrador), as it was conducted in a much larger urban area.

In accordance with McCay and colleagues' findings, Raising the Roof, a national charity dedicated to finding solutions to homelessness in Canada, documented similar concerns reported by homeless and at-risk youth. In 2009, Raising the Roof launched Youthworks, an initiative that examined 689 youth in multiple cities (St. John's, Toronto, and Calgary). Findings from this research indicated the mental health concerns most identified by youth overall were depression, post-traumatic stress disorder, and suicidality

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(e.g., ideation and attempts). High rates of drug and alcohol abuse were also reported by youth in this study. The drug and alcohol abuse was occasionally described as a means of coping with mental illness, due to the youths' inability to afford mental health medications, or to present proper identification in order to access those medications (Raising the Roof, 2009). However, it is noteworthy that this research solely used interviews to collect data, rather than validated measures of mental health issues. As well, data was mainly discussed for all three cities together, overlooking the potential differences in youth experiences by city/province. The present study will address these limitations by further enhancing the current understanding of psychological functioning within the population of a smaller urban centre (i.e., St. John's), using a well-validated measure of psychological distress. Using this measure, the current study will add to the existing literature by examining whether attachment orientation, childhood maltreatment, and/or self-compassion predict psychological distress in an at-risk youth sample.

Attachment: Theory and Relationship to Psychological Distress

John Bowlby (1969, 1973, 1988) first described attachment theory as an explanation for how early relational experiences impact development. Bowlby (1973, 1988) theorized that attachment is developed based on the quality of care provided to a child by their primary caregiver. He asserted that attachment is a biologically-based bond, assuring the child's proximity to the caregiver, particularly in times of danger and fear. It has been suggested that as a function of a caregiver's responses, the child develops internal working models of relationships; in other words, the child internalizes both sides of the relationship and develops models of the self and other (Bowlby, 1973). These models included an individual's perception of their own value and worthiness, as well as

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perceptions of others' ability and responsiveness to provide care in times of need (Main, 2000). These models will subsequently serve as a template for relationships, and help guide the child's understanding of the self, as well as their understanding of the self and others in relationships (Bowlby, 1988; Main, 2000).

In their influential research on the infant-caregiver attachment relationship, Mary Ainsworth and colleagues (1978) identified three organized attachment styles. Ainsworth validated her classification of a child's behaviour in a separation-reunion paradigm called the Strange Situation, which included extensive observations of the infant's (age 1-2 years) interactions with the parent in a controlled environment (Ainsworth, Blehar, Waters, & Wall, 1978). By use of this paradigm, they observed infants to behave in a consistent manner toward their primary caregivers when they would leave the room, as well as when they returned. The three organized attachment styles proposed by Ainsworth and colleagues (1978) were termed as: secure, anxious resistant (insecure), and avoidant (insecure).

The secure attachment style was observed when caregivers provided their child with consistent, affectionate care (Ainsworth et al., 1978). This attachment style describes when a child is able to express their needs with confidence, and the parent then responded quickly and appropriately. The secure children were easily soothed, and used the parent as a stable base from which they could return to exploration and play (Main, 2000). With the first insecure attachment style, the anxious-resistant type, children became extremely distressed upon separation from their parents, and when reunited, they were difficult to soothe (Ainsworth et al., 1978). In particular, their behaviour was described as clingy, fussy, and dependent (Main, 2000). It has been proposed that these children maintained

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access to inconsistent parents by heightening negative affect in order to get a reaction, and they were not easily soothed due to difficulty relying on parental responses (Main, 2000). The avoidant children did not appear as distressed by separation from their caregivers, and upon reunion, would actually avoid contact with their parent (Ainsworth et al., 1978). Parents of these children tended to be described as cold and rejecting when their child was needy; it was therefore proposed that the child's organized strategy for maintaining contact with the attachment figure was to suppress any negative affect that may drive the parent away (Main, 2000).

Not all children were observed to demonstrate consistent, organized attachment interactions however. Some children displayed a lack of organization, and contradictory approach-avoidance behaviour in the presence of the attachment figure (Main, Kaplan & Cassidy, 1985). Main and colleagues (1985) referred to this as a fourth type of attachment: an insecure disorganized attachment style. In the Strange Situation paradigm, these children would display disorganized behaviour in the presence of the caregiver; this could include conflicting behaviours (e.g., both approaching and avoiding behaviours), apprehension or hesitation when reunited with the parent after a separation, and freezing behaviour or expression in the presence of the caregiver (Carlson, Cicchetti, Barnett & Braunwald, 1989; Main & Solomon, 1990). This unusual infant and parent interaction has been explained in a model proposed by Liotti (1992), where the parent of the disorganized child often has a history of abuse or loss, and consequently relies inappropriately on the child to reduce their own distress. This type of situation can induce a role reversal, in which the child is then forced to seek comfort from the parent who is ultimately the cause of their stress/fear (Carlson et al., 1989). As such, Hesse and Main

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(2000) noted that maltreated children often fall into this disorganized attachment style category.

Research has demonstrated that attachment relationships are observable throughout child and adolescent development, and continue into adulthood. As such, Bartholomew and Horowitz (1991) described a model of adult attachment based on internal working models of both the self and other; this model classifies attachment styles into two dimensions, or four categories (see Figure 1). The four types of attachment are explained in terms of level of attachment anxiety and attachment avoidance (Bartholomew & Horowitz, 1991). Attachment anxiety is characterized by concern about intimate relationships including fear of rejection and abandonment, and negative feelings about the self. Individuals high in attachment anxiety are typically self-critical and negative, and have difficulties self-soothing and regulating emotion (Shaver & Mikulincer, 2009). Attachment avoidance is characterized by discomfort in relationships, and a tendency to avoid intimacy and closeness. Individuals high in attachment avoidance are more independent and self-reliant; they can display both positive and negative views of the self (Ainsworth et al., 1978; Pietromonaco & Feldman Barrett, 2000), but do not engage in efforts to enhance intimacy with others (Ainsworth et al., 1978; Bartholomew & Horowitz, 1991).

Bartholomew and Horowitz (1991) labelled the four categories of attachment, which vary in level of anxiety and avoidance, as secure, preoccupied, fearful, and dismissing. Secure attachments were characterized by low avoidance and low anxiety, as securely attached individuals believe others will be responsive when needed, and are dependable and worthy of trust (Bartholomew & Horowitz, 1991; Fraley, 2010). The

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secure attachment style is described similarly in both the child and adult attachment literature. Preoccupied attachments were characterized by jealousy and clinging behaviour, and a general preoccupation with an attachment figure. These individuals experience difficulty seeking help, and tend to view conflict as a strategy for attaining intimacy (Bartholomew & Horowitz, 1991; Fishtein, Pietromonaco & Barrett, 1999). Preoccupied attachment is characterized by low avoidance and high anxiety, and can be seen as the adult counterpart of the anxious-resistant child attachment style (Fraley, 2010). Fearful attachments are characterized by distrust of others, feelings of inadequacy, social avoidance, and a negative view of self and others (Bartholomew & Horowitz, 1991); this type of attachment corresponds to high avoidance and high anxiety, and can be seen as the adult counterpart to the disorganized child attachment style. The dismissing attachments were characterized by a tendency to downplay the importance of relationships and inflate self-worth; they correspond with high avoidance and low anxiety (Bartholomew & Horowitz, 1991; Fraley, 2010).

Although attachment has been conceptualized both categorically and dimensionally throughout the research literature, adult attachment researchers are moving towards a consensus that attachment is best understood using two continuous dimensions: anxiety and avoidance. In agreement with this, Fraley (2012) reported that taxometric analyses on multiple samples and measures, including the Strange Situation paradigm, self-report measures of attachment in adults, and the adult attachment interview, suggests that attachment is best understood with dimensions (Fraley & Waller, 1998; Fraley & Spieker, 2003). Fraley and Waller (1998) taxometric analyses on attachment data with young adults ($N = 639$) revealed that adult attachment is best measured and

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conceptualized as dimensional rather than categorical variables. Specifically, it was noted that organizing individuals into categories on the basis of their scores reduces the precision of measurement and lowers statistical power (Fraley, 2012). Given the consensus on using the dimensional approach to measuring attachment, this model of attachment orientation will be utilized in the present study.

Attachment and psychological distress. The relationship between attachment and psychological distress strongly impacts relationship quality. This, in turn, has psychological, social and emotional implications for individuals (Richmond & Stocker, 2006; Trickett et al., 2011). Previous research has suggested that psychological difficulties are often a consequence of an early insecure attachment style (Zeanah, Keyes, & Settles, 2003). Many studies have also found that patterns of relating (to the self and others) that are associated with insecure attachments are predictive of future psychological and social difficulties (Keskin & Cam, 2010; Scott-Brown & Wright, 2003; Stroufe, 2005; Stroufe, Egeland, & Carlson, 1999). Poor relationships within the family of origin have been specifically highlighted as negatively impacting an individual's overall well-being (Dekovic, 1999; Fowler et al., 2009; Trickett et al., 2011; Wolfe et al., 1999).

Insecure attachment styles have been of particular interest to researchers investigating the role of attachment in psychological functioning. Longitudinal studies have shown that children with insecure attachment styles, particularly those displaying disorganized patterns, are at a higher risk for psychological difficulties than other attachment styles (Lyons-Ruth & Jacobvitz, 2008). The disorganized child attachment style corresponds to high avoidance and high anxiety, and is represented by the fearful

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adult attachment style (Bartholomew & Horowitz, 1991). Research has suggested that disorganized attachment contributes to difficulties integrating emotional and interpersonal information (Liotti, 1992; Liotti, 1999), potentially leading to the deficits in psychological functioning seen in these individuals (Lyons-Ruth & Jacobvitz, 2008). Moreover, it has been proposed that the disorganized individual's style of coping with stressors in relationships is related to difficulties with emotional regulation (DeOliveria, Neufeld-Bailey, Moran, & Pederson, 2004).

Attachment and psychological distress in at-risk youth. The high rates of insecure attachment and adverse early life experiences documented by at-risk and street-involved youth make them a particularly vulnerable population. It is therefore important to understand the research outlining how attachment and psychological functioning present within these individuals. As discussed, the child-parent attachment relationship is fundamental to an individuals' ability to develop and maintain relationships later in life. However, at-risk and street-involved youth are often found to have adverse early life events, such as parent-child conflict, abuse, and/or neglect related to their family of origin (Kipke, Palmer, LaFrance & O'Connor, 1997; Ringwalt, Greene & Robertson, 1998; Wolfe et al., 1999).

Research has shown that at-risk and street-involved youth report higher rates of family conflict and maltreatment, as well as lower rates of positive family connections, warmth, and support in comparison to non-homeless youth—all variables that are associated with the attachment relationship (Wolfe et al., 1999). Given the high rates of abusive and neglectful relationships with family members, it is not surprising that at-risk

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youth populations have higher rates of psychological maladjustment (Hughes et al., 2010) and academic difficulties (Tyler & Bersani, 2008) than their not at-risk counterparts.

Although attachment styles have rarely been studied in an at-risk youth population, existing research has uncovered higher rates of insecure attachment in this population. Tavecchio and colleagues (1999) used the Attachment Styles Questionnaire to compare homeless youth to youth living in a residential facility (with a control group), and determined that higher rates of insecure attachment existed within homeless youths. Additionally, it was noted that experiencing parental divorce, a lack of parental responsiveness, and/or a lack of parental emotional support was associated with homelessness. Tavecchio and colleagues (1999) argued that youth homelessness is explained partially by attachment theory. According to Attachment Theory (Bowlby, 1973; 1988), an insecure attachment results in a child forming a negative image of both themselves and of their primary caretakers. With prolonged and consistent insecure attachment experiences, the child subsequently develops a working model that reflects a negative view of both self and others (Bowlby, 1973; 1988). Based on these experiences, they come to believe that they cannot rely either on their own abilities, or on the support of others. Tavecchio et al. (1999) appears to be the only published study using a validated measure of attachment with an at-risk youth sample. Although this study is a significant contribution to the literature, it was conducted 17-years-ago with a Netherlands sample, making generalizability to a Canadian sample difficult. Thus, more work needs to be done in examining the role that attachment dimensions have on psychological distress in at-risk youth. This current study addresses this issue by examining how attachment dimensions are related to psychological distress in an at risk Canadian sample.

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Consistent with attachment theory, research has shown that at-risk and street-involved youth experience negative home environments and a lack of trust in the availability of caregivers early in life, which may encourage more self-critical talk and feelings of isolation. To date, research on at-risk and street-involved youth has focused mainly on examining why youth leave home. However, as mentioned, little research has specifically examined attachment in these youth. The current study addresses this gap in the literature by examining attachment orientation in an at-risk youth sample using a psychometrically valid measure. Additionally, the ability of attachment orientation to predict psychological distress in at-risk youth is explained.

In the next section, the association between childhood maltreatment and psychological distress will be discussed. This relationship has received attention in previous literature and will be outlined in the present study, paying particular attention to its relationship in at-risk youth samples.

Childhood Maltreatment and Psychological Distress

The third variable assessed in this study was childhood maltreatment. Childhood maltreatment is a concept that encompasses multiple forms of abusive experiences during childhood (Bernstein et al., 2003). These experiences include emotional, physical and sexual abuse, as well as physical and emotional neglect (Bernstein et al., 2003).

Research has indicated that childhood maltreatment is associated with impaired cognitive and academic functioning (Mills, Alati, O'Callaghan, Najman, Williams, 2011), the development of psychopathology (Kessler et al., 2010; Ravndal et al., 2001), and problem substance use (Dembo et al., 1987; Dunn et al., 2002). Additionally, children exposed to physical and sexual assault report higher on both internalizing and

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externalizing symptoms of mental illness (Trickett & McBride-Chang, 1995).

Specifically, Kessler and colleagues (2010) found that negative childhood events (i.e., maltreatment) comprised 31% to 65% of the risk for mental health issues in children ages 4-12 years, 24% to 41% in adolescents (13-19 years), and 17% to 41% in young adulthood.

There also appears to be a strong relationship between emotion regulation difficulties, poor psychological functioning, and childhood maltreatment (Vettese et al., 2011). Cicchetti and colleagues (1993), for instance, found that youth who have experienced maltreatment are more likely than non-maltreated youth to display internalized symptomatology, disruptive or aggressive behaviour, and withdrawal from their peers. In support of these findings, Kim and Cicchetti (2010) compared maltreated ($n = 215$) and non-maltreated youth ($n = 206$) attending a program for inner-city children from low socioeconomic backgrounds. They found that individuals who experienced childhood maltreatment from primary caregivers displayed an increased risk of developing mental health concerns (i.e., internalizing and externalizing symptomatology) over time (Kim & Cicchetti, 2010). Results from this research also suggested that maltreated children experienced higher levels of peer rejection and lower levels of acceptance than their non-maltreated peers.

More recent research in this area has discussed other possible negative consequences of childhood maltreatment. For instance, abuse and neglect during childhood has been associated with impairments in cognitive and academic functioning. A longitudinal study by Mills et al. (2011) found that on tests of reading ability and perceptual reasoning, adolescents with a history of maltreatment scored lower overall

than their peers. Research has also examined relationships between childhood maltreatment and substance use issues in adolescence (Huang et al., 2011), as well as violent and/or delinquent behaviours (Mersky & Reynolds, 2007). Other possible consequences of childhood maltreatment have included unhealthy attitudes and relationships with the self, and/or others (Kendall-Tackett, 2002), as well as shame, self-criticism, and feelings of isolation (Feiring & Taska, 2005; Gilbert & Procter, 2006).

Childhood maltreatment and psychological distress in at-risk youth. For the purposes of the present study, the relationship between childhood maltreatment and psychological distress in at-risk youth is discussed in greater detail, as high rates of childhood maltreatment and mental illness are consistently reported in at-risk youth populations (Raising the Roof, 2009; Whitbeck et al., 2000). It has been reported that street-involved youth often leave their homes due to a lack of support in the family, conflict, and/or abuse. For example, Whitbeck and colleagues (1997) interviewed homeless and runaway adolescents ($N = 108$) about their experience of physical and sexual abuse within their family, as well as about their experience of victimization while living on the streets. Staggering amounts of conflict and abuse in the youths' families of origin were reported. Specifically, it was reported that a caregiver had thrown an object at 80% of them, 86% stated they had been pushed or grabbed by a caregiver, 43% were beaten up, and 29% were threatened with a weapon by a caregiver (Whitbeck et al., 1997). Similarly, a study by McCay and colleagues (2010) reported significant victimization among street-involved and homeless youth, with 61% reporting experiences of physical abuse within their lifetime (i.e., both in their families and on the street).

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Wolfe and colleagues (1999) examined the differences between the family environments of homeless adolescents (i.e., in shelters) and housed adolescents (i.e., those living with family or a foster family). Their results indicated that homeless adolescents disclosed significantly more maltreatment than their housed peers. In particular, homeless youth reported experiencing more verbal and physical abuse, increased family conflict, and less parental love and cohesion within their families than the housed adolescents. It is noteworthy that the sample used in this study was comprised of youth (12-18), and that the youth were classified as “homeless” if they had spent the previous night in a shelter. This methodology may have missed those homeless youth not accessing the shelter system. Nevertheless, the factors reported by the individuals in this study—childhood maltreatment, parent and child conflict, and perceived lack of love and family cohesion—have also been associated with the attachment relationship in previous research (Wolfe et al., 1999).

At-risk and homeless youths’ experience with maltreatment and trauma is reflected in their high rate of post-traumatic stress disorder (PTSD) symptomatology. A study by Thompson (2005) evaluated self-reported data from youth (ages 12-18) at emergency shelters, and found that more than 98% of youth had scores above the standardized mean, on the measure of traumatic distress (the Trauma Symptom Checklist for Children). This finding reflects the elevated rates of trauma, and trauma related symptoms in at-risk sample, highlighting that these rates of trauma symptoms require the attention of researchers and program developers. However, it is necessary to note that this study relied on symptom inventories (e.g., Trauma Symptom Checklist for Children) rather than on diagnostic assessments of PTSD, and therefore the findings must be

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interpreted carefully. Although the findings do not reflect diagnoses of PTSD, they nevertheless demonstrate the heightened rates of PTSD symptoms among this vulnerable population.

Whitbeck and colleagues (2000) examined factors contributing to depressive symptoms, substance abuse, and conduct problems among runaway and homeless youth. Participants included 602 youth aged 12-22 years, who were recruited through outreach services in four mid-western American states. Results from this study indicated that youth who experienced childhood maltreatment are at particularly high risk for depressive symptoms (as indicated by cut-off scores on the Center for Epidemiological Studies-Depression scale). However, their experiences and behaviours after leaving home also have a significant impact. In fact, victimization while living on the streets was determined to be the strongest predictor of depressive symptoms, substance use, and conduct issues (Whitbeck et al., 2000). It is well-documented that at-risk and street-involved youth often come from negative backgrounds characterized by family violence and maltreatment, and that these previous experiences impact the youths' mental health (Raising the Roof, 2009; Whitbeck et al., 2000; Wolfe et al., 1999).

The research literature highlighted an important relationship between childhood maltreatment and psychological distress in the at-risk youth population. It is therefore important to determine whether childhood maltreatment predicts current psychological distress among at-risk youth. This is addressed in the current study by examining both childhood maltreatment and psychological distress by means of well-established and researched self-report measures with strong psychometric properties.

The Concept of Self-compassion

The fourth variable addressed in the present study was self-compassion. Self-compassion has been a core tenet of Buddhist philosophy for centuries. In the scientific literature, Kristin Neff (2003a; 2003b) was the first to empirically examine self-compassion to determine how the concept might expand the understanding of healthy self-attitudes. Neff (2003a; 2003b) defined self-compassion as the ability to turn the compassion one would have for others onto the self. This requires individuals to direct the same compassion they would have for others inward when faced with difficult experiences¹. Neff (2003b) proposed that self-compassion is best understood as a single experience composed of three conceptually distinct, yet overlapping elements: self-kindness, common humanity, and mindfulness.

Self-kindness. The first element of self-compassion is self-kindness. Individuals are often very harsh and self-critical towards themselves (Neff, 2003b). Self-kindness is the ability to treat oneself with the same care and understanding as you would a friend, rather than ignoring the pain you are experiencing, or being self-critical or judgemental (Neff, 2003b). This requires the recognition that being flawed, failing, and experiencing difficulties in life are unavoidable, and focuses on being caring towards oneself when confronted with these experiences (Neff, 2003b; Neff & McGehee, 2010).

Common humanity. The second element of self-compassion involves having a sense of shared experience, or common humanity. This concept requires the recognition

¹ Neff and colleagues (Neff, 2003b; Neff, 2009; Neff & McGehee, 2010) discussed self-compassion and self-esteem as strongly correlated yet conceptually distinct. When controlling for self-esteem, the Self-Compassion Scale was still a strong predictor of depression and anxiety (Neff, 2003a).

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that imperfection, pain and suffering are shared human experiences; that is, they are not happening in isolation, and are not only happening to you (Neff, 2003a; Neff, 2003b).

Common humanity therefore recognizes the flaws and imperfections that come with being human, emphasizes that all humans suffer, and focuses on fostering a connected state of mind and a broader perspective (Neff, 2003b; Neff & McGehee, 2010).

Mindfulness. The third element of self-compassion is mindfulness. Mindfulness involves the awareness of present moment experiences, and of taking a balanced approach to negative emotions (Neff, 2003b). It is a non-judgmental state of mind where one observes thoughts and feelings as they are, without trying to suppress, change, or deny them (Birnie, Speca, & Carlson, 2010; Bishop et al., 2004). Mindfulness is important to self-compassion because one must be aware of suffering in order to embrace it with compassion. This element therefore allows individuals to recognize and embrace negative thoughts and experiences with compassion, and as a consequence, helps to avoid over-identifying and dwelling on the negativity (Neff, 2003b).

Self-compassion as a Mediator of Psychological Distress

As discussed, previous research has demonstrated associations between attachment style, childhood maltreatment, and psychological distress. Likewise, since Neff's early work (Neff, 2003a; Neff, 2003b), the relationship between self-compassion and psychological functioning has been well documented. One of the most consistent findings is that self-compassion is correlated positively with psychological functioning. MacBeth and Gumley (2012) conducted a meta-analysis to explore the associations between self-compassion and psychopathology across twenty studies, which utilized the self-compassion scale (Neff, 2003a). This meta-analysis concluded that self-compassion

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is an important predictor of mental health concerns. A large effect size ($r = 0.54$) was found for the relationship between self-compassion and psychopathology. These results suggest that higher self-compassion is associated with lower levels of mental health problems, and in contrast, lower levels of self-compassion is associated with higher levels of psychopathology (MacBeth & Gumley, 2012).

Accordingly, higher levels of self-compassion are correlated with fewer depressive symptoms. For instance, Raes (2011) explored whether an individual's naturally occurring levels of self-compassion (i.e., no intervention or treatment) would predict changes in depressive symptoms in a college student sample. Results from this research showed that self-compassion significantly predicted changes in depressive symptoms, such that higher levels of self-compassion at baseline were significantly associated with fewer depressive symptoms over five months. Following this, Krieger and colleagues (2013) explored the differences in self-compassion in a community sample of individuals diagnosed with depression, compared to a sample of individuals who had never had a depression diagnosis. They found that depressed individuals showed lower levels of self-compassion than individuals who were never depressed, even after depressive symptoms were controlled for. Furthermore, in the depressed individuals, self-compassion was negatively related to depressive symptoms, rumination, and behavioural avoidance (Krieger et al., 2013). These findings are consistent with the idea that self-compassion represents a potentially important intervening factor for psychological issues (Neff et al., 2007). As such, a discussion of the literature's current understanding of self-compassion as a mediating variable in the relationship between attachment and

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psychological distress, as well as in the relationship between childhood maltreatment and psychological distress, will follow.

Self-compassion and attachment style. As previously mentioned, Bowlby (1988) theorized that how individuals treat themselves and others is often a reflection of how they were treated throughout childhood by their primary caregivers. Family experiences have therefore been hypothesized to play a key role in the development of self-compassion because the concept requires being kind to the self, and likely develops from the internalized voice and modeling of significant others and caregivers (Neff, 2003b).

Wei and colleagues (2011) examined attachment anxiety, subjective well-being, and self-compassion in both a community and a college student sample. Participants in the community sample consisted of a convenience sample ($n = 136$) collected from malls, churches, and libraries in a large mid-western state in the United States, while the college student sample was recruited through psychology courses at the state university ($n = 195$). Results indicated that across the two samples, there was a negative relationship between attachment anxiety and self-compassion. In line with other research, the authors proposed that individuals with higher levels of attachment anxiety are more likely to be self-critical (i.e., to have a negative working model of self), and to feel overwhelmed by their own distress. Wei and colleagues (2011) suggested that it is possible that these individuals who are unkind to themselves think that negative experiences happen to them in isolation, and thus become overwhelmed by their thoughts and feelings (i.e., have low levels of self-compassion). Attachment avoidance was not examined because the authors described this relationship as more complex than attachment anxiety. This represents a significant

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limitation of the study as it leaves many questions about how attachment avoidance may be related to self-compassion and it does not fully represent the attachment experience. Results from Wei et al.'s (2011) study also indicated that self-compassion mediated the relationship between attachment anxiety and subjective well-being across the two sample groups. According to the authors, these results help to explain how the relationship between attachment anxiety and subjective well-being can be clarified through attachment anxiety's effect on self-compassion (Wei et al., 2011). Additionally, it adds to the theory that self-compassion is associated with well-being, because it helps individuals feel cared for and thus aids in emotional and psychological well-being (Neff, 2003b).

A study by Raque-Bogdan and colleagues (2011) demonstrated results consistent with the aforementioned research, indicating that attachment style was linked to psychological well-being through its effect on self-compassion. This study explored the relationships between self-compassion, attachment, mattering, and functional health through the use of survey data completed by college students in the United States (in a large mid-Atlantic university). Attachment was examined dimensionally in this study and both attachment anxiety and attachment avoidance were found to be negatively associated with self-compassion and measures of mental health (Raque-Bogdan et al., 2011). Additionally, mediation analyses revealed that self-compassion partially mediated the relationship between attachment (level of anxiety and level of avoidance) and mental health. The authors concluded that an individual's ability to be self-compassionate is an avenue through which attachment relates to mental health. However, it is important to note that a partial mediation was found, meaning that self-compassion explained some, but not all, of the relationship between attachment and mental health.

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Neff and McGehee (2010) theorized that family experiences (e.g., maternal support) likely play a contributing role in the development of self-compassion. This research examined self-compassion in both an adolescent sample (aged 14 to 17 years) and a young adult sample (aged 19 to 24 years). Participants were recruited for this research from a high school and a college in a largely middle class, south-western city in the United States. Self-report measures were used in this research to collect data on self-compassion, anxiety, depression, connectedness, maternal support, family functioning, and attachment. The authors asserted that when experiencing pain or failure, the way people treat themselves may be learned from their parents' modeling; that is to say, if caregivers were consistently available and nurturing, individuals would be more likely to develop an ability to relate to themselves in a compassionate manner (Neff & McGehee, 2010). Results from the research supported their theory, indicating that a secure attachment style was indeed positively associated with self-compassion in adolescents and young adults, while preoccupied and fearful attachment styles (e.g., those high in attachment anxiety) were negatively associated with self-compassion. However, dismissing attachment (i.e., high avoidance) was not related to self-compassion. Findings also indicated that self-compassion was related to psychological well-being among adolescents as well as adults (Neff & McGehee, 2010). It was found that self-compassion had a significant negative relationship with depression and anxiety, and a significant positive relationship with social connectedness. Self-compassion was also observed to partially mediate the relationship between family functioning and well-being, as well as between secure, preoccupied, or fearful attachments and well-being. That is, self-compassion was observed to account for some of the relationship, but not all. Neff and

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McGehee (2010) concluded that parents may influence their children's psychological well-being by modeling compassion and nurturance, and by fostering self-compassionate conversations.

Findings from Neff and McGehee (2010) are particularly relevant to the current research because there was no significant difference in the overall level of self-compassion between adolescent and young adult participant groups. The authors noted that this finding reflected the same level of self-compassion in adolescents in high school as was seen in young adults in college. This finding is important to the current study, as the sample used was comprised of individuals aged 17-24 years; thus, spanning middle to late adolescence and the young adult period of development. Moreover, the results reflected self-compassion's relevance to the normative adolescent experience (Neff & McGehee, 2010), which is not surprising, given that identity formation is still occurring in young adults while in college. However, this research had several methodological limitations that the current study will address. First, given the use of middle class high school and college students, the results from this study cannot be generalized to community samples, or to lower functioning samples, such as at-risk youth. Next, the overall measure of well-being used for the mediation analysis was calculated by taking the mean of the depression, anxiety, and connectedness scores, rather than using a well-validated measure of overall psychological functioning/distress. Neff and McGehee (2010) also examined attachment styles, family functioning, and self-compassion, but did not examine how childhood maltreatment may be associated with these variables. The present study will address these limitations by examining a novel community sample, utilizing a well-validated measure of overall psychological symptomatology, as well as

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examining both attachment and childhood maltreatment as they relate to psychological distress and self-compassion.

As a collective, the aforementioned research studies examining attachment and self-compassion were primarily conducted with middle to higher-class samples, particularly college student samples attending university in the United States. This highlights the fact that the relevance of self-compassion has not been demonstrated with youth from diverse backgrounds and/or with diverse living situations. It is known that at-risk and street-involved youth struggle with additional stressors including lack of education, employment, housing, and abuse histories, therefore constituting a different population than the typically-studied college students. The current study aimed to address this population sample gap in the research literature. As such, a goal of the current study was to examine whether self-compassion mediates the relationship between attachment insecurity (anxiety and avoidance) and psychological distress in an at-risk youth community sample.

Self-compassion and childhood maltreatment. The link between childhood maltreatment and self-compassion has been documented in previous research. This section will discuss research demonstrating evidence for a significant negative relationship between childhood maltreatment and self-compassion, as well as research examining self-compassion as a mediator of the relationship between childhood maltreatment and psychological distress.

In a 2011 study, Tanaka and colleagues examined a randomly selected sample of adolescents (ages 16-20) receiving child protection services across two years within an urban catchment area in Ontario, Canada. Childhood maltreatment was measured during

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the initial assessment, and mental health, substance and alcohol use problems, suicide attempts, and self-compassion were assessed at the two-year follow-up. Results indicated that lower levels of self-compassion were related to higher levels of childhood emotional abuse, physical abuse, and emotional neglect. In addition, participants with lower levels of self-compassion were determined to experience more psychological distress and/or alcohol abuse than those higher in self-compassion. Tanaka and colleagues (2011) concluded that research on self-compassion is important to gain insight into the impact of childhood abuse on adolescent functioning, particularly in the under-researched, high-risk groups. Yet, it is important to note that causal conclusions cannot be drawn from this type of research, as the direction of the relationships is unknown.

Jávita and Cerezo (2014) also examined the relationship between victimization and psychological maladjustment in adolescents with poor school performance, as well as the role of self-compassion in that relationship. Participants in this research included adolescents aged 15 to 18 years ($n = 109$) in a public high school in Spain. Victimization in this study was measured by the Juvenile Victimization Questionnaire (JVQ) (Finkelhor et al., 2005), which included childhood maltreatment, as well as other types of victimization (e.g., conventional offenses, peer and sibling victimization, sexual victimization, indirect victimization, and Internet victimization). Results from this study showed that self-compassion was negatively associated with psychological maladjustment, indicating that adolescents with higher levels of self-compassion had lower levels of psychological maladjustment. Also, as predicted, self-compassion partially mediated the relationship between victimization and psychological maladjustment, and reduced negative consequences in adolescents who reported having

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been victimized. That is, self-compassion accounted for some, but not all, of the relationship between victimization and psychological maladjustment. Jávita and Cerezo (2014) concluded that developing self-compassion in adolescence may help to protect individuals from negative experiences or traumas.

Providing further support for this relationship, Vettese et al., (2011) also found consistent results in a sample of youth who were seeking treatment for problem substance use. Participants in this research consisted of youth aged 16-24, seen at intake to a hospital-based substance treatment program. Using self-report measures, Vettese and colleagues (2011) found that self-compassion had a significant negative relationship with childhood maltreatment. That is, a higher reported incidence of childhood maltreatment was related to lower levels of self-compassion, and a lower incidence of maltreatment was found in those with higher levels of self-compassion. Furthermore, Vettese et al.'s (2011) results indicated that self-compassion predicted emotion dysregulation above and beyond maltreatment history, substance abuse, and current psychological distress. This was the first study to examine and report the predictive nature of self-compassion on emotion regulation. Vettese et al. (2011) also found that self-compassion mediated the relationship between child maltreatment and emotion regulation difficulties experienced later in life, meaning that childhood maltreatment was related to emotion regulation difficulties through their effect on self-compassion. Such findings support Neff and McGehee's (2010) conclusions that self-compassion predicts psychological functioning among adolescents and young adults. However, unlike that research, Vettese and colleagues did not examine the link between attachment styles and the other study variables (i.e., self-compassion, childhood maltreatment, emotion regulation).

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Inclusion criteria in the Vettese et al. (2011) study consisted of substance-related distress or impairment over the previous 60 days. However, youth who had a history of psychosis, bipolar disorder, self-harm and suicidality were excluded from the research. These exclusionary criteria weaken the study methodologically as it narrows the sample to those individuals with less severe presentations of psychological distress and maladaptive coping, consequently limiting generalizability. The current study aimed to address this limitation by including all youth in a community sample wishing to participate who could pass a basic comprehension check (discussed further in methods).

Although the current study is correlational and does not allow for discussion of casual relationships, it provides an important contribution to understanding the relationship between childhood maltreatment and self-compassion. The above-mentioned research examining childhood maltreatment and self-compassion was conducted in several higher-risk groups of individuals (i.e., child protection, adolescents with poor school performance, and substance use treatment seeking); however, it is noteworthy that these samples were of youth actively seeking or mandated to treatment/services of some kind, which narrowed the samples and again, limits generalizability. Additionally, this highlights the existing gap in the literature, in that the relationship between childhood maltreatment and self-compassion among at-risk and street-involved youth has not yet been studied, but deserves the attention of researchers. Given that the sample for the current research was considered at-risk due to their experience with childhood maltreatment, and more specifically, because they typically experience a higher incidence of maltreatment than other samples (Kipke et al., 1997; Ringwalt et al., 1998; Wolfe et al., 1999), the impact of self-compassion may be particularly relevant. It is also important

to highlight that not all individuals who are maltreated develop psychopathology and unhealthy ways of relating. Therefore, variables that may intervene in these relationships, such as self-compassion, must be considered. It is essential that childhood maltreatment and self-compassion are examined in an at-risk youth sample in order to examine if self-compassion will mediate the association between the higher levels of maltreatment experienced by at-risk youth and psychological distress. As such, another goal of the current study was to examine whether self-compassion would mediate the relationship between childhood maltreatment and psychological distress in an at-risk youth sample.

The Current Study

The current study aimed to examine a community sample of at-risk and street-involved youth in terms of their psychological distress, attachment orientation (i.e., attachment anxiety and attachment avoidance), history of childhood maltreatment, and level of self-compassion. As mentioned, to date there is no published research examining all of these key factors within this vulnerable population. Research has shown that significant levels of abuse, dysfunctional family relationships, and psychological distress characterize the histories of at-risk and street-involved youth. Understanding the interrelationships of these early traumatic experiences as well as the potential role of self-compassion could have significant therapeutic value. As such, the information obtained from the current study highlights predictors of psychological distress in an at-risk and street-involved youth population, as well as illuminates the potentially mediating role of self-compassion. This study aimed to inform interventions and assist in the development of programming designed to meet the population's identified needs. Given the amount of research indicating a reciprocal relationship between psychological distress and

homelessness (Hodgson et al., 2013; Martijn & Sharpe, 2006), it is hoped that data-informed interventions will support those youth at-risk of homelessness, potentially impacting rates of future homelessness and improving overall mental health.

The current study had three aims:

1. The first aim of the current study was to examine the level of self-compassion in an at-risk youth sample, compared to a similarly aged, published sample of college students. In order to address this aim, the current study's sample was compared to a sample of college students of similar ages, from a well-cited study of self-compassion by Neff and McGehee (2010). The same measure of self-compassion was used in this research, as the means and standard deviations were provided in the article, making the comparison between studies possible. This college student sample was used to represent a normative sample, as the majority of self-compassion research has been completed with college student samples (MacBeth & Gumley, 2012), and these types of samples have been discussed in the literature to be the most used control group (Peterson, 2001). Given the high rates of adverse life events experienced by at-risk and street-involved youth, it was hypothesized that self-compassion would be significantly lower in the current study's at-risk sample than in the college student sample.
2. The second aim was to examine predictors of psychological distress in an at-risk youth sample. Previous research has discussed childhood maltreatment and self-compassion as predictors of emotion regulation difficulties (Vettese et al., 2011), however, no research has examined these variables (or attachment)

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as predictors of psychological distress in an at-risk youth sample. The current study therefore proposed the following research question: which study variables (attachment orientation, childhood maltreatment, and/or self-compassion) will best predict psychological distress in an at-risk youth sample?

3. The third aim was to examine self-compassion as a potential mediating variable. Although self-compassion has been shown to mediate relationships with psychological outcome variables (Neff & McGehee, 2010 Vettese et al., 2011) in previous literature, the current study's sample is one that has not been studied before in terms of significant adversity and homelessness. Therefore, the current study sought to answer the following research questions: 1) will self-compassion mediate the relationships between attachment orientation (i.e., attachment anxiety and attachment avoidance) and psychological distress?; and 2) will self-compassion mediate the relationships between childhood maltreatment and psychological distress?

Method

Participants

The participants consisted of a convenience sample of at-risk youth recruited from programs offered by Choices for Youth (CFY). CFY is a non-profit community organization which provides basic needs (e.g., food and emergency shelter), life skills training, supportive and transitional housing, and educational and employment opportunities to at-risk youth within the area of St. John's, Newfoundland and Labrador

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(Choices for Youth, 2016). Exclusion criteria included youth engaged with CFY outside of the age range (16-24), or those who could not complete the basic comprehension check explained in the procedure. Participants were recruited from five CFY programs:

Outreach and youth engagement services. This program tends to be the initial point of contact for youth accessing services offered by CFY, as youth aged 16-29 can access this program. It provides crisis response and targeted supports, such as drop-in services, one-on-one guidance, and relationship building opportunities. Outreach operates on a harm-reduction model, providing basic needs such as hot meals, clothing and personal items, telephone and Internet access, needle exchange, laundry, and shower services to youth on a daily basis (Choices for Youth, 2016).

Young men's shelter. This program is an emergency shelter for individuals identifying as male, aged 16-29 years. Youth can live in the shelter for up to one month while developing their housing plan, which can be completed independently or with support (Choices for Youth, 2016).

Transitional housing. This program provides youth with supportive communal living opportunities at several housing units in St. John's. CFY staff members are responsible for checking in with and providing targeted supports to youth on a daily basis, while simultaneously helping them foster independence (Choices for Youth, 2016).

Train for trades. This program provides on the job safety and construction training for youth who are ready to secure employment or pursue skills trades training. There is an interview process with this program, as it is only appropriate for certain youth. This program's goals are to foster independence and empower participants with

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intensive supports, and the education and training needed to transition to independent and sustainable employment (Choices for Youth, 2016).

Lilly building. This program provides affordable longer-term housing for youth facing mental health issues, addictions, and homelessness in order for them to begin individualized support programs. This program is only appropriate for those youth who are willing and able to be involved in a support or educational program, as there is an expectation that they will pay rent and maintain a certain level of independence (Choices for Youth, 2016).

Procedure

Ethics approval was provided by the Interdisciplinary Committee on Ethics in Human Research (ICEHR) of Memorial University of Newfoundland on 16 September 2013. Data collection took place in St. John's Newfoundland at the five aforementioned CFY community programs between 30 September 2013 and 20 December 2013.

Participants were recruited through advertisements placed at each CFY program (see Appendix). These advertisements provided a brief description of the study and the option to sign up for an appointment. Given the dependence of these youth on the programs offered by CFY, every effort to avoid perceived coercion was made. Therefore, recruitment was completed by advertisement invitation only; there was no mention of the project by CFY staff, including outreach workers, volunteers, MUN researchers, and/or other students. Once prospective participants expressed an interest in the study, staff provided information in a neutral manner and provided them an appointment time. Once an appointment was made, the participant met with the primary investigator for an

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individual appointment. All data collection took place in a private room within each community program.

During their appointment, youth were assured that their participation in the research had no impact on their ability to access services in their programs, nor would CFY staff have access to their disclosed information. The general purpose of the research was explained to each youth. All participants were informed that they would be asked very personal, sensitive and potentially uncomfortable questions and that they could stop at any point, as their participation was completely voluntary. Once informed consent was obtained, all participants were asked to explain back to the researcher, in their own words, what they were consenting to, as a basic comprehension check. All participants were able to complete this comprehension check.

Participants were also informed of the limits to confidentiality; specifically, all youth were informed that if they disclosed any information about an imminent risk of hurting themselves, hurting others or information of other youth in need of protection, that the information would have to be reported to the proper channels for safety purposes. The researcher's primary supervisor, Dr. Kellie Hadden, is a registered psychologist, and was available for consultation via phone during data collection had any concerns with risk occurred. Dr. Hadden was consulted once regarding a youth who disclosed physical abuse in the home, where small children still resided. Given that the youth expressed concern that the children were at risk for harm as well, it was agreed that it was necessary to break confidentiality; the youth was informed and the situation was reported to the local child protection agency, Children, Seniors and Social Development. The youth was encouraged to speak with CFY staff about the report being made and their feelings about it; however,

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they indicated they did not need to, as this was a positive experience, rather than something upsetting.

Given the varying levels of education and support services in the sample, all measures and consent were presented orally to participants to ensure that literacy was not a barrier to their participation. The primary investigator presented the statements from each measure orally and advised each participant to record their responses on a separate form in written format to ensure their privacy and reduce the impact of social desirability. One exception to this was the Youth Participant Profile measure, as it was a semi-structured interview, and as such, responses were spoken by the participant and recorded by the primary investigator. Measures were administered to each participant in a random order to prevent the order of administration from having a systematic influence on the level of participant concentration. All collected data were securely kept in a locked filing cabinet at Memorial University. No identifying information (i.e., name, birth date, etc.) was recorded on any of the collected data.

As an incentive for participation, participants were given a \$10 gift certificate of their choice, for a local coffee shop or grocery store. Given that the minimum wage at the time of data collection in the province of Newfoundland and Labrador was \$10 an hour and participation took approximately one hour, this was determined by the researcher to be an appropriate amount of compensation. To ensure participants did not feel obliged to complete the research simply for compensation purposes, the gift card was provided before completion of the interview, and participants were informed that they could still withdraw their consent to participate at any time.

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Measures

Sociodemographic information. All demographic information was obtained using a semi-structured interview developed and provided by CFY, the Youth Participant Profile (see Appendix A). This interview includes closed and open ended questions assessing the youth's basic demographic information, housing history, family of origin, educational history, health and wellness issues, employment history, counselling history, involvement with the criminal justice system, sexual exploitation, etc. The average completion time for this measure was 20-30 minutes; however, this varied depending on the youth's self-driven interest to expand on their answers.

Attachment style. Attachment patterns were measured as one of the current study's independent variables utilizing the *Experiences in Close Relationships Scale-Revised (ECR-R)*; see Appendix; Fraley, Waller, & Brennan, 2000). The ECR-R is a 36-item measure used to assess the two dimensions of attachment, anxiety and avoidance, as discussed in the Bartholomew and Horowitz (1991) model. Participants used a 7-point Likert scale (*7 = strongly agree, 1 = strongly disagree*) to indicate the how they felt about each statement. Half of the statements assess discomfort with closeness and attachment avoidance (e.g., "I prefer not to be too close to others"); while the other half assesses fear of abandonment and need for contact, hallmarks of attachment anxiety (e.g., "My desire to be very close sometimes scares people away"). The ECR-R provides both dimensional and categorical measures of attachment. Using a dimensional model of attachment, an average of the items within each subscale was calculated to obtain one overall attachment anxiety score, and one overall attachment avoidance score. Given the literature indicating that adult attachment is best measured and conceptualized as a

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dimensional rather than categorical variable (Fraley, 2012; Fraley & Spicker, 2003; Fraley & Waller, 1998), dimensional measures of attachment were utilized in the present study.

The ECR-R was chosen as the present study's measure of adult attachment, as previous research has demonstrated its consistent reliability and validity. A study by Sibley, Fisher and Liu (2005) showed that the ECR-R had high levels of stability over a three-week period, indicating a good level of test-retest reliability (anxiety scale, $r = .92$; avoidance scale, $r = .91$). This study also examined the ECR-R as it compared to another measure of attachment, the Relationship Questionnaire. Results indicated good convergent validity, noting that the measures assessed the same pair of attachment dimensions (anxiety and avoidance). These results were consistent with other research that has stated the ECR-R has sound psychometric properties (Fraley et al., 2000). The ECR-R has also presented high internal consistency— $\alpha = .94$ for the avoidance scale, and $\alpha = .90$ for the anxiety scale (Brennan, Clark, & Shaver, 1998). In the present study, the internal consistency of the ECR-R was determined to be high— $\alpha = .90$ for the avoidance scale, and $\alpha = .94$ for the anxiety scale. This measure takes approximately 10-15 minutes to complete.

Childhood maltreatment. Participants' history of childhood maltreatment was measured using the Childhood Trauma Questionnaire Short Form (CTQSF). The CTQSF is a 28-item retrospective self-report questionnaire, which encompasses a validity scale evaluating minimization/denial, and history of five major abusive domains: (a) physical abuse, (b) physical neglect, (c) emotional abuse, (d) emotional neglect, and (e) sexual abuse (Bernstein et al., 2003). Participants rate each item on a five-point Likert scale from

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“never true” to “very often true”. Examples of items include: “I felt loved”, and “I did not have enough to eat”.

Research has demonstrated the reliability and validity of the CTQSF.

The CTQSF has been shown to perform similarly across four diverse samples (i.e., substance-using adults from New York and Texas, adolescent psychiatric inpatients and a normative community sample) with varying levels of maltreatment, demonstrating the measurement invariance of the scale (Bernstein et al., 2003). The items held consistent meanings across diverse populations, supporting the use of the scale in both community and clinical populations. The CTQSF has been shown to have good test-retest reliability, demonstrated by its stability over time (Bernstein et al., 1994; Bernstein et al., 2003; Lipschitz et al., 1999), as well as good internal consistency ($\alpha = .63 - .95$). In the present study, the internal consistency of the CTQSF was determined to be high (.91). This measure takes approximately 10 minutes to complete.

Self-compassion. Self-compassion was measured using the 26-item Self-Compassion Scale (SCS; Neff, 2003a). The SCS includes six subscales: Self-kindness (five items, e.g., “I try to be understanding and patient towards those aspects of my personality I don’t like”); Self-judgment (five items, e.g., “I’m disapproving and judgmental about my own flaws and inadequacies”); Common humanity (four items, e.g., “I try to see my failings as part of the human condition”); Isolation (four items, e.g., “When I think about my inadequacies, it tends to make me feel more separate and cut off from the rest of the world”); Mindfulness (four items, e.g., “When something painful happens I try to take a balanced view of the situation”); and Over-identification (4 items, e.g., “When I’m feeling down I tend to obsess and fixate on everything that’s wrong”).

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Responses use a five point Likert type scale ranging from “almost never” to “almost always,” with higher total scores representing greater self-compassion. When the SCS was developed (Neff, 2003a) confirmatory factor analyses were conducted which indicated that a single higher-order factor of self-compassion could explain the inter-correlations between the six subscales on the measure (NNFI = .90; CFI = .92). Neff (2003a) therefore asserted that researchers could either examine the six subscales separately, as well as a total score. A total score has generally been used in the literature (Neff & McGehee, 2010; Vettese et al., 2011; Wei et al., 2011), as such, a total self-compassion score was examined in the present study.

Research has provided evidence for the validity of the SCS. The SCS demonstrates concurrent validity through its negative correlation with self-criticism (Neff, 2003a; Neff, 2016) and convergent validity through its significantly correlated scores with therapist matched ratings of self-compassion (Neff et al., 2007). The SCS was also demonstrated to have no correlation with social desirability or narcissism, suggesting good discriminant validity. Strong measures of reliability have also been demonstrated by the SCS. Specifically, previous research (Neff, 2003a; Neff et al., 2007) has documented good test-retest reliability ($r = .93$) and good internal consistency (.90 – .95 for overall scores and .75 – .86 for subscale scores). Neff and McGehee (2010) found no significant differences between adult and adolescent scores on the SCS, or between internal consistency coefficients ($\alpha = .90$ for adolescents and $\alpha = .93$ for adults). The authors suggested that the measure is therefore also reliable in adolescent populations. In the present study, the internal consistency of the SCS was determined to be high (.91). Completion time for this scale is approximately 10 minutes.

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Psychological distress. Participants' current level of psychological distress was measured utilizing the 53-item Brief Symptom Inventory (BSI; Derogatis, 1993). The BSI is a self-report measure used widely in clinical settings and based upon Derogatis' (1994) Symptom Checklist-90-R (SCL-90-R). This measure asks participants to rate the degree to which they have experienced a specific symptom during the past week. Participants' responses are measured on a five-point scale from "not at all" to "extremely". The measure contains nine symptom scales: somatization, obsessive-compulsive, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism, in addition to three global indices: global severity index (GSI); positive symptom distress index (PSDI), and positive symptom total (PST). Therefore, the BSI can be interpreted at three levels: global, dimensional, and discrete symptom. Given that the GSI was designed to measure overall level of distress, this global score was used in the current study as the measure of psychological distress.

The BSI has sound psychometric properties including convergent, discriminant, and predictive validity (Derogatis, 1993). For instance, a study by Derogatis, Rickels and Rock (1976) using a sample of 209 symptomatic volunteers showed impressive convergent validity of the BSI with the Minnesota Multiphasic Personality Inventory (MMPI). Coefficients ranged from $\geq .30$ between the nine dimensions of the BSI and the clinical scales of the MMPI, indicating that the measures were assessing the same things (Derogatis et al., 1976). Similarly, the BSI is highly correlated with another measure of psychological symptomatology, the Brief Psychiatric Rating Scale, suggesting its strong convergent validity and ability to assess overall symptomatology (Morlan & Tan, 1998). Furthermore, Derogatis (1993) reported formal reliability estimates of two types: internal

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consistency and test-retest. The BSI manual reported that 60 non-patient individuals were given the BSI at multiple time points over two weeks, revealing stability coefficients from .68 to .91 across symptom scales. The GSI scale also revealed an excellent stability coefficient of .90, providing strong evidence for test-retest reliability as well as consistent measurement across time (Derogatis, 1993). The BSI manual also reported alpha coefficients for internal consistency as ranging from .71 to .85 in a sample of 719 psychiatric outpatients. In the present study, the internal consistency of the BSI (total score) was determined to be high (.90). This reflects strong internal consistency of the GSI scale in the present sample, as the GSI is calculated by adding the sums of the nine symptom dimensions and the additional items and then dividing by the total number of responses. This measure is written at a sixth grade reading level, and the average completion time is 8-10 minutes.

Data Screening

Before analysed, the data were first screened for any missing values, outliers, normality, skewness, and kurtosis.

Missing values. Data were first screened for missing values. In the current study, all participants completed all questionnaires and no participants withdrew from the research. There were no missing values in the dataset. The lack of missing values may be explained by the researcher reading the majority of the study measures to participants; because of this, no items were skipped over.

Outliers. The data were screened for outliers by examining whether any data points were more than three standard deviations from the mean. There were no such data points, therefore, it was concluded that no transformation or exclusion of subjects was

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necessary (Tabachnik & Fidel, 2007). An analysis of standard residuals was also performed which showed that the data contained no outliers (Std. Residual Min = -2.44, Std. Residual Max = 1.78). Additionally, in order to identify any potential multivariate outliers, the use of a $p \leq .001$ criteria for the Mahalabois distance was used and none were identified. Therefore, the results including all original data are reported below.

Normality. Data were then screened for normality through histograms and measures of skewness and kurtosis. Values of skewness and kurtosis are presented in Table 4. As can be seen from this table, the self-compassion, childhood maltreatment and statistics are positive, and the attachment avoidance and anxiety data are negative, however, are within normal limits (Tabachnik & Fidel, 2007). Given that an at-risk community sample was recruited, skewness is anticipated on clinical measures, such as measures of psychological distress. Kurtosis values indicated that the psychological distress, attachment avoidance and self-compassion variables were somewhat flat in terms of peakedness, however, were also within normal limits (Tabachnik & Fidel, 2007).

Statistical Analyses

All data were analysed using SPSS Version 23.0. Means and standard deviations are presented for all study variables. Cronbach's alpha coefficients were computed to examine the internal consistency of study measures in the present sample (see Table 3).

A power analysis was conducted using the software package, GPower (Faul & Erdfelder, 1992) to calculate the minimum sample size required to detect a moderate effect size. Analyses suggested a minimum sample size of 50 participants was required, in order to detect a moderate effect size in the current study.

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The present study examined sex differences across all study variables using an independent samples *t*-test. These differences were examined to confirm that the present study results were not accounted for by differences between males and females. Another series of independent sample *t*-tests examining employment status, education level, family connection, history of child protection involvement, history of incarceration, and homelessness were conducted across study variables to ensure the results of the research questions were not better explained by these demographic variables. Given the number of *t*-tests conducted, a *p*-value equal to .01 was used in order to reduce the probability of Type 1 Error.

Frequency data (i.e., frequencies and percentages) were used to examine the descriptive information collected about participants (demographic information, information about education, employment, health and well-being, substance use, family of origin, and housing history) with the Youth Participant Profile.

Addressing the present study's first aim involved conducting a one sample *t*-test comparing the current sample's mean self-compassion score to the mean score for a published sample of college students (Neff & McGehee, 2010). The mean and standard deviation were presented in the published study, allowing the comparison between samples. As a post-hoc analysis, another one sample *t*-test was conducted comparing the current study's mean childhood maltreatment score to that of a previously published sample (Vettese et al., 2011).

To examine the second aim, correlations between all study variables were first calculated utilizing the Pearson product moment correlation (*r*) to ensure relationships between study variables existed. Next, the assumptions of regression were checked and

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the results were satisfactory (Tabachnik & Fidel, 2007). Specifically, data was checked for collinearity, multi-collinearity, homoscedasity and linearity and non-zero variances. Following this, four univariate regressions (attachment anxiety, attachment avoidance, childhood maltreatment and self-compassion) were conducted with psychological distress as the dependent variable. Given the observed sex differences in study variables, the effect of sex was controlled for. This allowed the researcher to ensure that relationships between the predictor variables and the dependent variable were not accounted for by sex. Univariate regressions also allowed the researcher to determine which predictor variables to examine further. A hierarchical regression examining the best predictors of psychological distress was then conducted. In hierarchical regression, the independent variables are entered into the regression equation in an order specified by the researcher. Again, the effect of sex was controlled for. Therefore, sex was entered into Block 1 of the regression analysis, and the predictor variables (those that had significant univariate relationships with psychological distress) were entered into Block 2, with psychological distress as the dependent variable. This allowed the researcher to examine which variables would emerge as the best predictors of psychological distress when all the study variables were considered and the effect sex was controlled for.

To address the third research question, mediation analyses using Baron and Kenny's (1986) model were conducted. This method was chosen because of its consistent use in previous self-compassion literature (e.g., Neff & McGehee, 2010; Vettese et al., 2011; Wei et al., 2011). Specifically, three multiple regressions were examined for each mediation: 1) regressing the dependent variable (psychological distress) on the independent variable (childhood maltreatment, attachment anxiety, or attachment

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avoidance); 2) regressing the mediator (self-compassion) on the aforementioned independent variable; and 3) regressing the dependent variable on both the mediator and the independent variable to examine whether the mediator was a significant predictor of the dependent variable, and if the previously significant direct effect in the first step was reduced.

Results

Fifty-two youth completed the five study measures and provided consent to use their data in the present research study; no youth dropped out or withdrew once consent to participate was given. However, because only one youth identified as transgender, their data were not included in the present study. This youth's gender identity was recognized as unique and therefore could not be added to a male or female category for statistical analyses; nor could another category be developed, as there was only one participant in this group. The inclusion of their data for descriptive purposes would have put this participant's anonymity at risk; accordingly, the final sample consisted of 51 youth.

All youth completed the measures within one appointment time, however, several youth took short breaks (e.g., bathroom, snack, etc.) between completing measures. The length of participation was not recorded, but was noted by the researcher to be typically approximately one hour and fifteen minutes. As previously mentioned, the researcher presented the questions orally and advised each participant to record their responses on a separate form in written format, to ensure their privacy and to reduce the impact of social desirability. Only one youth opted to complete the measures independently, without the researcher presenting the questions orally.

Participant Sociodemographic Description

As can be seen in Table 1, the final sample included 51 individuals; 30 males (58.8%), 21 females (41.2%), with ages ranging from 17-24 years ($M = 20.86$, $SD = 2.44$). The majority of individuals (98%) identified themselves as Canadian citizens and identified as Caucasian (96%, $n = 49$). Six individuals (11.8%) self-identified as Aboriginal, or of Aboriginal descent. Thirty-nine (76.5%) participants described themselves as heterosexual, six (11.8%) as bisexual, three (5.9%) as gay/lesbian, and three (5.9%) as “other” or not sure.

Education. During the semi-structured interviews, many youth indicated struggling in school or dropping out of school for various reasons (e.g., learning difficulties, lack of interest, addictions or mental health issues, etc.). In fact, over half of the sample, 58.8% ($n = 30$), reported having dropped out of school at least once. Many youth reported difficulty reading (33.3%, $n = 17$) and/or writing (31.4%, $n = 16$). A detailed description of the highest level of education completed for the participants can be found in Table 1. As can be seen, 31.2% of the sample ($n = 16$) reported having completed high school. At the time of data collection, 15.7% ($n = 8$) of the participants indicated they were currently attending school; some youth were in high school, while others were completing their General Education Development (GED) as a condition of the Train for Trades or Lilly Building programming. The majority of the sample, however, did not complete high school (68.6%, $n = 35$), with only one participant completing one year of college.

Employment. The majority of the sample (62.7%, $n = 32$) was unemployed at the time of participation. The nineteen participants (37.3%) who reported being employed at

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the time of data collection described being employed by the Train for Trades CFY program or having a part-time retail job (e.g., in a coffee shop or fast food restaurant). Some youth also disclosed working “under the table” for cash (e.g., as a labourer or cleaner) as a way to secure an additional source of income that could not be traced back to them, and thus could not impact any government funding that they may have been receiving.

Health and wellbeing. The health and wellness information collected was self-report and not verified by a collateral source. Diagnostic information was also self-report and did not represent a formal professional assessment. While a detailed breakdown of self-reported health and wellness issues can be found in Table 1, it is important to highlight the substantial amount of anxiety and depression which participants reported experiencing. Forty-three youth (84.3%) indicated experiencing symptoms of anxiety, and forty (78.4%) reported experiencing symptoms of depression. Of particular concern is the frequency of suicidal ideation and previous suicide attempts (62.7%, $n = 32$ and 49%, $n = 25$, respectively) noted by participants in this sample.

Five youth (9.8%) indicated that they have been involved in sex work, either by their own choice or were sexually exploited by someone else. No youth indicated current involvement in sex work. There were ten youth (19.6%) who discussed being involved in “survival sex” as a way to stay safe, in exchange for food, drugs or a place to stay. These youth mentioned feeling like they had no other options, or that this was the easiest option for them at the time.

Substance use. The majority of participants (60.8%, $n = 31$) reported having current issues with substance abuse. The breakdown of recreational lifetime substance use

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of alcohol, marijuana, prescription drugs (e.g., OxyContin, Percocet), and non-prescription drugs (e.g., cocaine, ecstasy, etc.) is also detailed in Table 1.

Family of origin. The majority of participants reported currently having a disrupted connection with their family of origin (52.9%, $n = 27$), a term which could have held different meaning for different participants. For instance, youth stated that they believed they had a disrupted connection because they did not speak to their parents, tried to avoid speaking or dealing with their parents, hated their parents, or experienced an event (e.g., removal, death, etc.) during which they were separated from their family of origin. Of note, 25 individuals (49%) indicated they had been involved with child protection at some point in their lives.

The majority of the sample (62.7%, $n = 32$) reported growing up in a chaotic home environment. Chaotic home environments were described as those where youth experienced early family break ups, family violence, parental unemployment, substance use, or criminal involvement (see Table 1 for a detailed breakdown of experiences). Chaotic home environments additionally included housing inconsistency—almost half of the sample ($n = 25$) discussed their families struggling with homelessness issues, frequently moving around, not having a permanent residence, and/or sometimes not knowing where their family would stay.

One quarter of the sample (25.5%, $n = 13$) indicated that they have children of their own, however only seven of these youth (13.8%) reported having some custody or contact with their children. Of those seven participants who had custody of their children, some were receiving support from family and friends, while others were not. Some participants who did not have custody of their children discussed Children, Seniors and

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Social Development (provincial child protection agency) removing their children from their care, leading to their children being placed in foster care or adopted.

Housing history. Participants were asked to describe their housing history; specifically, what types of places they have lived (or slept) in the past, and where they were currently living (or sleeping). A breakdown of frequency and percentages can be found in Table 1. Overall, participants discussed living in staffed home placements, such as the Lilly Building, foster care, group homes, or in emergency shelters.

Of note is the frequency of participants who mentioned that they had spent time at some point in their life living on the street (45.1%, $n = 23$). This statistic does not include those individuals who had been homeless, but had not spent time living on the street. As mentioned previously, homelessness does not refer only to those individuals living on the street, but also refers to the hidden homeless population (Raising the Roof, 2009). Using this definition, almost one-third (27.4%, $n = 14$) of the participants were considered to be homeless at the time of data collection. Participants included in the hidden homeless population were those who were reportedly couch surfing, those currently staying at an emergency shelter (i.e., the Young Men's Shelter or another community service), and several who were unsure where they would be spending the night. One youth did not want to stay overnight at a shelter, and another was female and was having difficulty finding an open bed at a shelter. Those youth who were unsure where they would spend the night were directed to CFY staff and provided information on shelters/services in St. John's.

Descriptive Statistics for Study Variables

Means and standard deviations for all study variables—self-compassion, attachment, childhood maltreatment, and psychological distress—are presented in Table

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2. Reliability estimates were examined for all study variables (Cronbach's alpha); these estimates are shown in Table 3. The four measures used were determined to have a high degree of internal consistency in the current study.

Differences across study variables. A series of independent *t*-tests were used to examine whether differences existed across study variables. A *p*-value equal to .01 was used to control for Type 1 Error.

Table 5 contains the means, standard deviations, and *t*-values for all study variables by sex ($N = 51$). Significant sex differences were found for all study variables, with the exception of attachment avoidance. In terms of self-compassion, males were found to have significantly higher levels of self-compassion than females — $t(49) = 2.70$, $p = .00$, $d = .76$. Females endorsed significantly higher psychological distress than males — $t(49) = -2.51$, $p = .01$, $d = -.69$. Females also reported experiencing significantly more childhood maltreatment than males — $t(49) = -2.59$, $p = .01$, $d = -.72$. Also, females reported significantly higher levels of attachment anxiety than males — $t(49) = -4.27$, $p = .00$, $d = -.52$.

Table 6 presents a breakdown of attachment styles in the current sample. Although attachment was examined dimensionally in the current study, attachment styles for the at-risk sample are presented categorically in the for descriptive purposes.

Tables 7-11 contains the means, standard deviations, and *t*-values for all study variables by employment status, education level, connection with family, incarceration history, child protection history, and homelessness ($N = 51$). There were no significant differences found in terms of these demographic variables and the present study variables. This indicated that these characteristics were not associated with individual differences

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across study variables. Given the unequal sample sizes for these specific comparisons, a post-hoc power analysis using the program GPower was performed. This analysis indicated that the current study sample size was not large enough to detect a moderate effect size. Therefore, these negative findings may be associated with a lack of statistical power.

Self-compassion Compared to Published College Student Sample

A one sample *t*-test was performed to compare mean level of self-compassion in the current sample to that of Neff and McGhee's (2010) sample of university students. Means and standard deviations provided in the published article were used for comparison. Participants in the Neff and McGhee (2010) study were recruited from a subject pool in a largely middle class college in a south-western city in the United States ($N = 287$, 43% male, 57% female, $M = 21.1$ years, range 19-24 years). Participants were described as 68% Caucasian, 9% Hispanic, 17% Asian, and 7% mixed/other. Comparisons between samples were made because of the similar age range and standard deviation between samples.

The current study's mean score on the self-compassion scale ($M = 2.74$; $SD = .67$) was significantly lower, $t(336) = 2.65$, $p = .00$, than that found in Neff and McGhee's (2010) population of college attending young adults ($M = 2.99$, $SD = .61$), suggesting that participants in the current study had lower levels of self-compassion. Cohen's d was utilized as a measure of effect size; this analysis indicated a moderate effect size ($d = .72$).

Rates of childhood maltreatment in comparison to a published sample. As a post-hoc analysis, the present study's childhood maltreatment variable was compared to another previously published sample, in order to get a better sense of the level of

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maltreatment in the current sample. Vettese and colleagues' (2011) participants included youth ages 16-24 who were beginning a substance abuse treatment program. This sample was chosen for comparison because it represented a more vulnerable than a college student sample. Also, this study examined self-compassion and childhood maltreatment using the same measures as the current study. A one sample *t*-test was performed to examine the differences between samples. Means and standard deviations provided in the published article were used for comparison. The current study's mean score on the CTQSF ($M = 65.56$, $SD = 19.79$) was significantly higher, $t(130) = 6.43$, $p = .00$, $d = 1.12$, than that found in Vettese et al. (2011) article ($M = 45.41$, $SD = 15.95$). This suggests that participants in the current study reported significantly higher levels of childhood maltreatment than the youth in Vettese et al. (2011) article.

Predicting Psychological Distress

Correlations between study variables were calculated utilizing the Pearson product moment correlation. As can be seen in Table 13, there were significant negative correlations between self-compassion and all of the other study variables. Lower levels of self-compassion were related to higher levels of reported psychological distress ($r = -.33$, $p = .02$), childhood maltreatment ($r = -.41$, $p = .00$), attachment anxiety ($r = -.56$, $p = .00$), and attachment avoidance ($r = -.48$, $p = .00$). Psychological distress was positively related to childhood maltreatment ($r = .59$, $p = .00$) and attachment anxiety ($r = .60$, $p = .00$), indicating that as levels of childhood maltreatment and attachment anxiety increased, psychological distress also increased. It is worth noting, however, that attachment avoidance was not correlated with psychological distress, childhood maltreatment, or attachment anxiety.

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As discussed, the assumptions of regression were checked before analysis and the results were satisfactory (Tabachnik & Fidel, 2007). Univariate regressions were performed (controlling for the effect of sex) to make sure that significant relationships between study variables existed, as well as determine predictors for the multivariate analysis. Self-compassion was significantly associated with psychological distress, $F(2, 48) = 4.74, p = .01$. In addition, childhood maltreatment, $F(2, 48) = 13.99, p = .00$, and attachment anxiety, $F(2, 48) = 13.78, p = .00$ were also significantly associated with psychological distress. Attachment avoidance was not associated with psychological distress in the current study, therefore, it was not used in the following analysis.

A hierarchical multiple regression (Table 14) was then performed to assess which of the current study's independent variables (attachment anxiety, childhood maltreatment, and self-compassion) best predicted level of psychological distress, after controlling for the influence of sex. In hierarchical regression, the independent variables are entered into the equation based on theoretical grounds. Given that sex was the only significant difference observed across study variables, sex was entered on its own into Block 1, explaining 11.4% of the variance in psychological distress— $F(1, 49) = 6.31, p = .01$. A significant sex effect, $t = 2.51, p = .01, d = -.69$, was found. Given the univariate regression results, attachment anxiety, childhood maltreatment, and self-compassion were entered into Block 2.

After entry of these variables into Block 2, the total variance explained by the model as a whole was 43.6%, $F(4, 46) = 8.88, p = .00$. The predictor variables explained an additional 32.2% of the variance in psychological distress, after controlling for sex— $R^2_{\text{change}} = .32, F_{\text{change}}(3, 46) = 8.74, p = .00$. In the final model, the sex effect was no

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longer significant, and only two predictor variables were statistically significant: childhood maltreatment ($t = 2.40, p = .01$) and attachment anxiety ($t = 2.28, p = .01$). This suggests that childhood maltreatment and attachment anxiety significantly predicted psychological distress over and above that of the other variables. Self-compassion did not account for any additional variance in predicting psychological distress.

Self-compassion as a Mediating Variable

Baron and Kenny's (1986) model of mediation was used to examine whether self-compassion mediated the relationships between 1) childhood maltreatment and psychological distress; and 2) attachment orientation (i.e., anxiety and avoidance) and psychological distress in an at-risk youth sample. In order to conclude that a mediating relationship exists, Baron and Kenny (1986) reported that three conditions must be met: (1) there must be a significant relationship between the independent and dependent variable; (2) there must also be a significant relationship between the independent variable and the mediating variable; and (3) there must be a significant relationship between the mediator and dependent variable, when the mediator and independent variable are entered into the same regression equation and their relationship must reduce the direct effect of the independent on the dependent variable (Baron & Kenny, 1986). A Sobel (1982) test of mediation can then be used to test for significance.

Baron and Kenny's (1986) conditions for mediation demonstrated that self-compassion was not a mediating variable between childhood maltreatment and psychological distress in the present at-risk youth sample. To be more specific, when examining whether self-compassion mediated the relationship between childhood maltreatment and psychological distress, it was determined that the aforementioned third

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condition was not met. Childhood maltreatment history was significantly associated with psychological distress ($R^2 = .35$; $F = 26.19$, $p = .00$; $\beta = .59$, $p = .00$) and self-compassion ($R^2 = .18$; $F = 10.39$, $p = .00$; $\beta = -.41$, $p = .00$). However, as shown in Figure 2, when self-compassion was entered into the model, the significant effect of childhood maltreatment history on psychological distress was not reduced ($R^2 = .35$; $F = 13.3$, $p = .00$; $\beta = .54$, $p = .00$). Therefore, in the present study, self-compassion was determined not to mediate the relationship between childhood maltreatment and psychological distress.

The conditions for mediation outlined by Baron and Kenny (1986) also demonstrated that self-compassion was not a mediating variable between attachment anxiety and psychological distress in the present at-risk youth sample. Again, the third condition for mediation was not met. Attachment anxiety was significantly associated with psychological distress ($R^2 = .36$; $F = 28.05$, $p = .00$; $\beta = .60$, $p = .00$) and self-compassion ($R^2 = .30$; $F = 21.39$, $p = .00$; $\beta = -.55$, $p = .00$). However, as shown in Figure 3, when self-compassion was entered into the model, the significant effect of attachment anxiety on psychological distress was not reduced ($R^2 = .36$; $F = 13.74$, $p = .00$; $\beta = .60$, $p = .00$). Therefore, in the present study, self-compassion was determined not to mediate the relationship between attachment anxiety and psychological distress.

The first condition was not met between attachment avoidance and psychological distress. That is, there was no direct relationship between attachment avoidance and psychological distress ($R^2 = .00$; $F = .00$, $p = .96$; $\beta = -.00$, $p = .96$), therefore, there was no reason to further investigate a mediation effect (Figure 4).

Discussion

The current study provided an extensive description of the experiences and

struggles of a vulnerable sample, and is an important contribution to the research literature in the areas of attachment, childhood maltreatment, psychological distress, and self-compassion in at-risk youth. It is the first study to examine self-compassion in an at-risk and street-involved youth sample, as well as the first to demonstrate differences in self-compassion between these at-risk youth and other samples (i.e., university students, and youth seeking treatment for substance abuse). Samples used in previous research examining self-compassion have consisted primarily of high school and college students (Jávita & Cerezo, 2014; Neff & McGehee, 2010; Raque-Bogdan et al., 2011; Wei et al., 2011). The current sample however, represents a unique group who has experienced, and continues to experience, tremendous degrees of adversity, including homelessness. The current study confirmed previous findings regarding predictors of distress in at-risk youth, as well as provided preliminary information for a theoretical understanding of the barriers to development of self-compassion in at-risk youth samples. Finally, the current study provided preliminary data about the role of self-compassion in mediating psychological distress in an at-risk youth sample.

Discussion of Participant Characteristics

Participants in the current study consisted of a community sample of at-risk and street-involved youth; almost half of the sample reported a history of living on the street, and approximately one-third of participants were homeless at the time of data collection. While there were more male than female participants in the current study, this may be due to recruitment taking place in male dominated programs (e.g., Young Men's Shelter and Train for Trades), rather than in female dominated Choices for Youth (CFY) programs (e.g., Momma Moments). However, it is noteworthy that the higher proportion of males

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in the current study is consistent with previous samples of at-risk youth (Canadian Observatory on Homelessness, 2015; Kidd, 2003; Kipke et al., 1997). For instance, Segaert (2012) found that over a four-year period (2005-2009), males made up the majority (i.e., over sixty percent) of homeless youth accessing emergency shelter across Canada. This suggests that the representation of sex in the current study is likely reflective of at-risk youth in Newfoundland and Labrador, as well as in Canada.

The majority of the sample identified as Caucasian, with only six individuals self-identifying as Aboriginal. An over-representation of minority groups typically exists within homeless youth populations; however, the current sample was not as ethnically diverse as samples recruited in larger urban centres such as Toronto or Vancouver (Canadian Observatory on Homelessness, 2015; Raising the Roof, 2009; Rew et al., 2001; Shillington et al., 2011). Although the current sample was less diverse than other studies, it remains representative of the population of St. John's, Newfoundland and Labrador as compared to larger urban centres (Census, 2006; Newfoundland and Labrador Heritage Web Site, 2000). More specifically, the homogeneity of the sample is consistent with previous research conducted with youth from CFY and two other local agencies in St. John's, which consisted of participants who were Caucasian (85%), Aboriginal (9%), African American (1%) and undefined ethnicity (5%) (Centre for Addictions and Mental Health, 2015). A higher percentage of Aboriginal individuals would have likely been found in Labrador as opposed to the island portion of the province, which is primarily of Caucasian descent. Although ethnicity of the current sample was different than previous research of at-risk homeless samples, the proportion of LGBTQ youth (23.5%) was consistent with previous research (Canadian Observatory on Homelessness, 2015).

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High scores for attachment anxiety and attachment avoidance were found in the current sample. This finding is consistent with the results of Tavecchio and colleagues (1999) which reported that the homeless population is less likely to describe themselves as having a secure attachment (i.e., low attachment anxiety and avoidance). The type of insecure attachment style found most often in the current sample was the fearful/disorganized style. This attachment style corresponds to high avoidance and high anxiety. Given the high rates of adversity and trauma reported in the current study sample, this finding is consistent with assertions in previous literature. Specifically, this style in particular has been associated with problematic outcomes within the research literature (Main, 2000), and is strongly predicted by caregiver intrusiveness and maltreatment (Sroufe, 2005).

Discussion of Main Findings

Using a cross-sectional design, the current research found that, as expected, the level of self-compassion in the at-risk youth sample was significantly lower than that of a college student sample from the Neff and McGehee (2010) study. This suggests that compared to a similarly-aged sample of college students, the at-risk sample was significantly less self-compassionate; that is, they were less likely to turn feelings of compassion inward onto themselves when experiencing pain or difficulties. Characteristic differences between the participants in the current study and the Neff and McGehee (2010) sample may explain these differences in self-compassion. For instance, the current study's at-risk sample reported growing up in chaotic homes, having disruptions in caregiver relationships (i.e., child protection involvement and removal from primary caregivers), high rates of trauma (e.g., physical, sexual, and emotional abuse, and

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neglect), and low rates of employment and education (i.e., one third of the sample completed high school). The backgrounds of the comparison sample (i.e., Neff & McGehee, 2010) used in the current study were unknown; however, given that the sample had completed high school and had the financial and physical means to enroll in college, it is proposed that at the time of data collection, the two samples were likely negotiating different developmental milestones and had access to different resources. The current sample was struggling with homelessness (i.e., living on the street, in shelters, or couch surfing), housing and financial instability (e.g., inconsistent housing, employment), and/or unsafe housing conditions (e.g., bedsitters, violent/chaotic relationships). Consequently, youth in the current study experienced, and continue to experience, vulnerability and adversity as they navigate high-risk environments to meet their basic fundamental needs. As conceptualized through Maslow's hierarchy of needs (Maslow, 1970), it is possible that the present sample was more focused on meeting their basic biological (e.g., food and shelter) and safety (e.g., health and security) needs (Maslow, 1970), rather than focusing on identity development, personal growth, and self-actualization as is often seen in college samples, which may have been the case in the Neff and McGehee (2010) study.

The connection between identity development and self-compassion may be of particular importance, as an individual's identity is a reflection of knowing and accepting the self (Maslow, 1970), which are also core elements of self-compassion. For instance, the ability to recognize and accept one's imperfections, providing kindness and warmth to the self regardless is a necessary component of self-compassion practice (Neff, 2003b).

Providing further context for the lower levels of self-compassion seen in the

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present sample, the youth in the current study reported an increased level of childhood maltreatment compared to Vettese and colleagues' (2011) published sample. Since the same measures were used (i.e., SCS and CTQSF) in the two studies, the present study's childhood maltreatment variable was compared to Vettese et al.'s (2011) sample in a post-hoc analysis. Findings indicated that the current sample reported significantly more childhood maltreatment than the Vettese et al. (2011) sample. Vettese and colleagues (2011) examined self-compassion and childhood maltreatment in a sample of youth (aged 16-24) during intake to a substance abuse treatment program. One evident difference between these samples exists—the Vettese and colleagues' (2011) sample were beginning treatment, whereas the current sample were still engaged in problematic substance use, and were often living in unstable and violent situations. Although the Vettese et al. (2011) sample also constituted a vulnerable sample, they were at a minimum, beginning to address their substance use issues, which may impact their ability to be kind to themselves. In contrast, the current sample were either at-risk of homelessness or currently homeless, as well as reporting significantly more maltreatment in childhood. This further highlights the vulnerability and adversity experienced by the youth in the current study. As will be discussed below, this adversity is thought to contribute to the lower levels of self-compassion observed in the current sample.

The lower levels of self-compassion in the current study sample may suggest that the chaotic family environments, adversity, conflict, and trauma experienced by these youth influenced the way the youth talk to themselves. These types of experiences may have influenced the development of more critical and unkind self-talk, ultimately hindering their ability to be compassionate toward themselves. Supporting this idea,

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several researchers (e.g., Neff & McGehee, 2010; Pepping, Davis, O'Donovan & Paul, 2015) have proposed that attachment theory may be a useful framework for understanding the development of self-compassion. More specifically, self-compassion has been theorized to develop from the internalized voice and the modeling of caregivers (Neff & McGehee, 2010; Wei et al., 2011). Pepping and colleagues (2015) found that attachment anxiety predicted self-compassion, and suggested that the origins of self-compassion may stem from attachment orientation. Consistent with previous research, attachment insecurity in the current study was associated with lower levels of self-compassion (Neff & McGehee, 2010; Wei et al., 2011). When relational experiences with caregivers are sensitive and responsive, attachment theory proposes that a secure attachment and self-soothing abilities are facilitated (Bowlby, 1979, 1988), which may in turn provide an individual with the enhanced capacity for self-compassion (Neff & McGehee, 2010). However, in the current study, the at-risk sample's relational experiences with caregivers were often reported as inconsistent, critical, rejecting, and abusive—all factors contributing to attachment insecurity. Attachment insecurity is characterized by fear of rejection and abandonment, concern and/or discomfort about relationships, negative feelings about the self, and difficulties self-soothing and regulating emotion (Pietromonaco & Feldman Barrett, 2000; Shaver & Mikulincer, 2009). Any or all of these attributes could hinder the development of a self-compassionate voice. Youth in the current sample, who experienced significant family bond disruptions and childhood trauma, likely had less exposure to healthy family relationships as children. Therefore, they likely had less opportunity as they grew up to develop a self-compassionate voice, as the manner in which parents/caregivers talk to and interact with children directly impacts

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the way children talk to themselves (Pepping et al., 2015). In addition, it is possible that the sample's uncertain access to basic life needs (e.g., food, shelter, etc.) continues to impede the development of a compassionate internal dialogue as they grow into adulthood. Thus, in at-risk youth samples such as the current study, self-compassion may be seen as a higher-order psychological skill, which requires support and training to develop. As youth learn to identify and integrate positive attachment role models and experiences into their lives, they may be in a better position to voice a more positive evaluation of themselves.

Following this, evidence from the current study suggested that in the at-risk sample, self-compassion did not predict psychological distress when all variables were considered. Rather, childhood maltreatment and attachment anxiety significantly predicted psychological distress over and above that of the other variables. In fact, childhood maltreatment and attachment anxiety accounted for almost half of the variance in self-reported levels of psychological distress. Consistent with previous literature, significant relationships between high attachment anxiety (Tavecchio et al., 1999) and psychological distress, as well as childhood maltreatment and psychological distress (Cicchetti et al., 1993; Kessler et al., 2010; Lyons-Ruth & Jacobvitz, 2008; Zeanah et al., 2003) have been documented. High rates of insecure attachment styles and adverse early life experiences, such as childhood maltreatment, have been shown to be associated with internalizing symptomatology, disruptive or aggressive behaviour (Cicchetti et al., 1993; Tavecchio et al., 1999), post-traumatic stress symptomatology (Thompson, 2005), and depression (Whitbeck et al., 2000). Consistent with these findings, the present study demonstrated similar associations between these variables, and also found a strong

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predictive association between attachment anxiety and childhood maltreatment, with psychological distress over and above other associated variables (i.e., self-compassion, and attachment avoidance).

Neither attachment avoidance, nor self-compassion added additional variance in predicting psychological distress in the current sample. There are several possible explanations for their lower predictive ability. First, attachment avoidance has been discussed as a complex variable in previous research, as results regarding its relationship to other variables, such as psychological distress, have been inconsistent (Fraley & Shaver, 1997; Wei et al., 2011). Interestingly, previous research has suggested that a lack of statistical relationship between attachment avoidance and psychological distress does not necessarily reflect a lack of distress, but rather reflects a type of self-protective behaviour displayed by avoidant individuals (Fraley & Shaver, 1997; Neff & McGehee, 2010; Wei et al., 2011). For instance, Fraley and Shaver (1997) found that based on measures of skin conductance, dismissing adults (i.e., those displaying high attachment avoidance) were just as distressed as other individuals, but when asked to suppress their negative thoughts and feelings, they were able to do so effectively; they could deactivate their physiological arousal to minimize the attention paid to distressing thoughts. Therefore, in the current study, the lack of a statistically significant relationship between attachment avoidance and psychological distress may be more reflective of the at-risk youth's self-protective behaviour.

Evidence from the current study suggested that when examined as a direct relationship, self-compassion was associated with psychological distress. However, when the predictor variables were entered into a regression together, self-compassion was

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removed from the predictive model. This may suggest that there is a shared variance between self-compassion and the other predictor variables (i.e., attachment anxiety and childhood maltreatment). That is, when the current study examined the variables together in the same regression, the variance in psychological distress accounted for by self-compassion appears to be better explained by attachment anxiety and childhood maltreatment. This follows the theory discussed earlier that youth in the current sample likely had minimal exposure to healthy family relationships as children, and thus had less opportunity as they grew up to develop a self-compassionate voice. It is possible that self-compassion does not naturally develop in individuals with traumatic childhoods, who also continue to live in unsafe environments. As a result, the variance in psychological distress for the current sample is better explained by their experience of maltreatment and attachment anxiety. As will be discussed below, this shared variance explanation may also provide an explanation for the mediation results in the current study.

Although self-compassion did not appear to be as important of a predictor variable for psychological distress in the current study, the possibility that self-compassion mediates the relationships between maltreatment and psychological distress, as well as between attachment anxiety and psychological distress, was examined. The results indicated that self-compassion did not mediate these relationships in the current study. In other words, self-compassion was not a mechanism through which attachment anxiety or childhood maltreatment were related to psychological distress. This is inconsistent with previous research (Neff & McGehee, 2010; Raque-Bogdan et al., 2011; Vettese et al., 2011; Wei et al., 2011) that has shown self-compassion to be a significant mediator of the relationships between attachment, childhood maltreatment, and varying measures of

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psychological functioning (i.e., well-being and emotion regulation). It may be that the use of an at-risk sample, and the overlapping variance between self-compassion and the other predictors (i.e., attachment anxiety and childhood maltreatment) in the current study could partly explain why the current study results did not corroborate previous findings.

Of note, the present study used a cross-sectional, correlational design; therefore, the direction of the observed relationships is unknown and causal relationships cannot be inferred from this research. For instance, it is possible that self-compassion does not change the level of psychological distress, rather the level of psychological distress changes the way individuals speak to themselves. Another possibility, supported by previously discussed research (Pepping et al., 2015), is that attachment orientation may actually mediate the relationship between self-compassion and psychological distress. Therefore, the present study results are considered exploratory, as further research is needed to determine the strength and direction of the relationships between study variables in this type of at-risk youth sample.

The lack of mediation found in the current study may also be explained by the influence of unstudied, extraneous variables. For instance, previous research has found a relationship between shame and psychological functioning in individuals who experienced childhood abuse. Shame is associated with a history of abuse, and it is also significantly related to the course of depression (Andrews, 1995; Andrews & Hunter, 1997). More specifically, shame has been a primary factor underlying distress in traumatized individuals (Feiring & Taska, 2005; Feiring, Taska & Lewis, 2002). Given the high rates of childhood maltreatment in the current sample, and the behavioural patterns of concealment (i.e., avoiding, distancing, lying, etc.) that accompany the

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experience of shame (Feiring & Taska, 2005; Feiring, Taska & Lewis, 2002), this variable may be of importance to the youth's ability to be self-compassionate. If a youth is struggling with feelings of shame because of previous and possibly current trauma, their ability to be kind and compassionate towards themselves is likely impacted. Thus, further research examining the relationships between shame, self-compassion and psychological distress in an at-risk adolescent population is necessary.

Strengths of the Current Study

This current study has several methodological strengths. First, the current study recruited at-risk youth participants from five different programs (i.e., Outreach & Engagement Services, Young Men's Shelter, Transitional Housing, Lilly Building, Train for Trades) within a community organization in St. John's, Newfoundland and Labrador. Recruitment from multiple programs allowed for a more generalizable sample of the whole CFY organization. Additionally, the current sample constitutes a broader community sample, as no youth were excluded from the study because of experience with mental health issues, such as bipolar disorder, self-harm, or suicidality, as was the case in previous research (e.g., Vettese et al, 2011). Further to this, the researcher read aloud study measures to ensure that lower education and potential literacy issues within the current sample were not a barrier to participation. Therefore, no youth were excluded from participation because of education level or literacy issues.

Another strength of the sample is the high completion rate; that is, all participants in the current study completed all five study measures—no participants withdrew consent or dropped out of the study once data was collected. This may be associated with the current study's methodological considerations for response fatigue (i.e., choosing shorter

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versions of measures, counterbalancing measures) and encouraging participants to take short breaks between measures if necessary. This lack of attrition meant that all data collected in the current study (with the exception of one transgender participant), could be included in the analyses.

Next, while the use of self-report measures can present several limitations, the sound psychometric properties of the self-report measures used in the current study are considered a strength. Specifically, the measures assessing childhood maltreatment (CTQSF), attachment (ECR-R), psychological distress (BSI), and self-compassion (SCS), have all been widely used in previous research and have been shown to have strong psychometric properties. In addition, tests of scale reliability (i.e., Cronbach's alpha) conducted for all study measures also demonstrated excellent internal consistency in the current study (Table 3).

Last, the present research constitutes an important contribution to the existing literature on self-compassion. Specifically, the current study was the first known instance where the SCS was used with an at-risk and street-involved youth sample; therefore, highlighting a gap in the existing literature on self-compassion.

Limitations

There are several limitations of the current research, including recruitment, measurement, and study design. In regards to the present study's sample, the recruitment of at-risk youth participants involved five different programs (i.e., Outreach & Engagement Services, Young Men's Shelter, Transitional Housing, Lilly Building, Train for Trades) within the CFY organization. While previously discussed as a strength, this heterogeneity of program make-up may also be considered a limitation. As previously

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discussed, the programs all fall under the umbrella of CFY, yet they are considerably different in intensity, support provided, and level of youth engagement. It is unknown whether the five different programs where recruitment was conducted consisted of youth with different psychological functioning, skill sets, etc. It is therefore possible that the differences in these CFY programs attract youth with diverse histories, as well as various levels of support, maltreatment, self-compassion, and psychological distress. The ability to make comparisons between these programs would have been beneficial; however, because of the small sample size, participant recruitment location was not collected during the present research to ensure participants' anonymity. Further research in this population may wish to examine whether different psychological issues are reflective of different program expectations.

The use of one community agency for participant recruitment is a potential limitation. Although CFY is the primary community outreach centre in St. John's, and has the highest at-risk youth involvement, it is unknown what differences there may be between youth involved with CFY and those who never make contact. Therefore, the current sample may not be representative of the entire at-risk youth population. For instance, youth who do not make contact with CFY may experience more maltreatment or psychopathology, or may have different attitudes about help-seeking than those youth who do make contact. As such, issues with generalizability are considered another limitation of the current study. Using a comparison group of homeless youth living on the street or accessing other community services could address this limitation, and may be an interesting avenue for future research.

Another limitation is that there was no community control group collected that

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would facilitate direct comparisons with the CFY group. Given the scope of the current research means and standard deviations from samples in previously published articles (Neff & McGehee, 2010; Vettese et al., 2011) were used for comparison. While it is common practice to use published norms, these published samples do have some differences (e.g., geographic location, ethnic diversity), which must be kept in mind when interpreting results. Future research in this area should collect both an at-risk and university sample from the same city, to help account for those differences. That being said, the use of the published sample means as a comparison group in the current study allowed for the interpretation of self-compassion scores; specifically, it allowed for exploration of how self-compassion in the sample compared to other samples in the literature.

Given the limited data collection period for the current study, collecting a larger participant sample was not possible. It is important to consider that a larger sample size would have provided more statistical power, created a more generalizable CFY sample, and made the above-mentioned comparisons between CFY programs possible.

Additionally, although not an aim of the current research, significant sex differences were found in all study variables (with the exception of attachment avoidance). A larger sample size would have allowed for further analyses comparing differences between males and females (e.g., conducting separate mediation analyses for males and females). It is therefore suggested that future research examine sex differences in attachment, maltreatment, psychological distress, and self-compassion in at-risk youth. This research could provide information regarding whether males and females have different barriers to self-compassion depending on type of trauma experienced, their level of attachment

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anxiety and attachment avoidance, and whether these differences influence psychological distress. Additionally, this research could examine any differences that arise in the study variables because of participant street-involvement. For instance, women are more physically vulnerable living in the street environment, which may play a role in current psychological distress (Kolar, Erickson & Stewart, 2012).

Next, given the cross-sectional design and correlational nature of the findings, the direction of the observed relationships is unknown and causal relationships cannot be inferred from this research. In addition, this design provided only a snapshot of the sample and study variables at one point in time, but did not allow for the examination of any changes over time in study variables. Given the timeline and scope of this dissertation, this design was the best option; still, it is worth noting that other designs may provide advantages. A longitudinal method would have allowed the opportunity to explore the relationships between childhood maltreatment, attachment, psychological distress, and self-compassion over time. In the absence of longitudinal data, it is not possible to draw conclusions regarding the directions of the observed relationships. For example, psychological distress may produce future low self-compassion or the relationship may be the other way around. However, longitudinal methodology would likely be challenging given the at-risk youth sample's mobility and housing instability. Accessibility issues, such as maintaining contact and finding potential collaterals would likely be problematic in this population (Homeless Hub, 2016; MaCay et al., 2010).

Several measurement limitations also exist in the current study, highlighting some of the challenges of research with at-risk populations. First, the use of retrospective, self-report measures is considered a study limitation. The use of these measures may have

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created the potential for error due to memory issues, as it required a vulnerable, sometimes mentally ill or substance-using, sample of participants to recall details about their past. Next, concerns with the impact of social desirability on results may be of particular relevance in the current study. Similar to previous research with other at-risk youth samples (e.g., Hughes, et al., 2010), the researcher read aloud study measures to ensure that lower education and potential literacy issues within the current sample were not a barrier to participation. In an effort to reduce the impact of social desirability, participants recorded their own answers in private. It is of note however, that the implementation of a social desirability measure to assess any impact the researcher reading the measures had on results would be beneficial for future research.

The present study's use of the Childhood Trauma Questionnaire Short Form (CTQSF) as the only measure of childhood maltreatment may be considered another potential limitation. Although this measure is short, and provided information about a participant's degree of experience with physical abuse, physical neglect, emotional abuse, emotional neglect, and sexual abuse, it did not measure other factors related to the abuse. For instance, research has demonstrated that the impact of childhood maltreatment is related not only to the type of abuse, but also the severity of abuse, relationship with the abuser, duration and intensity of abuse, the timing of abuse, and others' responses to the abuse (Feiring & Taska, 2005; Feiring, Taska & Lewis, 2002; Kendall-Tackett, 2002). The ability to explore these factors would have added further depth to this study. Additionally, research indicates that the more instances or types of maltreatment experienced, the stronger the relationships to psychological maladjustment (Finkelhor et al., 2007; Jativa & Cerezo, 2014); however, the concept of poly-victimization was not

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addressed by the CTQSF, and thus this study did not allow for the exploration of the impact of cumulative maltreatment. Clarifying these youths' maltreatment experiences, and determining the extent to which the current study's findings generalize to different levels of abuse severity, ongoing abuse, cumulative abuse, or abuse by different perpetrators is an important avenue for future research.

Finally, previous research has used the self-compassion scale (SCS) to examine self-compassion. However, the present study is the first instance in which the measure was used in an at-risk and street-involved youth sample. The SCS was written at a grade eight reading level; however, given the reported literacy issues with many youth in this sample, the researcher was often still asked to define words for the present study's participants. To provide a specific example, youth often asked for clarification of the word "inadequacies." In this instance, the researcher reworded the question utilizing "weakness" or feeling "not as good as other people." Youth also asked for clarification on the following item: "I try to see my failings as part of the human condition." As such, it was explained by the researcher to mean, "I try to think about my failures or weaknesses (or bad things that happen) as something that everyone experiences at some point." When a youth expressed confusion or uncertainty about an item, the researcher assured the item was understood after it was reworded, and reminded the youth that this measure was exploring how they treat themselves during times of distress. A test of the reliability of the SCS in this sample was conducted, and demonstrated excellent internal consistency, indicating that the adapted wording used by the researcher did not impact reliability. However, further research examining self-compassion in at-risk youth populations should consider lowering the reading level of the SCS, or developing a measure specifically for

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these types of vulnerable populations, given their specific needs and experiences.

Clinical Implications

The findings of the current study have some potentially important clinical implications for intervention, support, and treatment planning in at-risk youth samples. First, the prevalence of mental illness among youth experiencing homelessness, predicting levels of distress may be valuable in assessing which youth may be currently experiencing or are at higher risk for experiencing psychological problems in the future, and those who may need additional support and services. Encouraging results, including decreases in psychological distress and behavioural issues, have been found in earlier research examining the implementation of psychological services and counselling in a crisis-service centre for homeless youth (Barber, Fonagy, Fultz, Simulinas, & Yates, 2005). Therefore, the current study findings may also aid in creating more targeted supports (e.g., access to individual counselling, group therapy, addressing negative core beliefs, and treating post-traumatic stress from negative life experiences, etc.), particularly for youth with high levels of attachment anxiety and histories of childhood maltreatment.

The current study findings may also help to create or supplement trauma-informed training opportunities for staff at organizations like CFY. Results from the current study indicated that childhood maltreatment histories and family of origin issues remain important predictors for these youth's current psychological distress; therefore, providing additional training opportunities to staff around these issues may be warranted. Specifically, providing training in how to relate to, or work with, youth with high levels of attachment insecurity, as well as how to react to or support youth with maltreatment

histories (e.g., react to externalizing behaviors) would be helpful.

Although no mediation was found, the current findings were consistent with previous research (e.g., Neff & McGehee, 2010; Vettese et al., 2011; Wei et al., 2011) in indicating a significant negative association between self-compassion and all study variables. Namely, consistent with previous research, lower levels of self-compassion were related to higher levels of reported psychological distress, childhood maltreatment, attachment anxiety, and attachment avoidance. The current study theorized that the youth in the current sample who experienced significant family bond disruptions and childhood trauma likely had minimal exposure to healthy family relationships as children, and thus had less opportunity as they grew up to develop a self-compassionate internal voice. The potential to enhance self-compassion in this group of at-risk youth has important implications for lowering psychological distress. It is possible that self-compassion does not naturally develop in individuals with traumatic childhoods, and chaotic, insecure attachment relationships. Therefore, investigating interventions aimed at improving self-compassion in this vulnerable population may be worthwhile. While this has yet to be specifically examined in an at-risk youth population, it is important to note that previous research has demonstrated that self-compassion can be enhanced with practice (Gilbert, 2010; Gilbert & Procter, 2006). Several programs have been developed to help individuals become more self-compassionate. Specifically, self-compassion therapies, such as Compassion-Focused Therapy (Gilbert, 2010; Gilbert, 2014) and Mindful Self-Compassion (Germer & Neff, 2013; Neff & Germer, 2013) have demonstrated that compassionate mind-states may be learned, and may both alleviate psychological distress and promote well-being. Self-compassion has similarly been demonstrated to increase

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with changes in mindfulness after participation in a Mindfulness-based Stress Reduction (MBSR) program (Birnie, Speca, & Carlson, 2010).

Several self-compassion techniques have also been shown to be effective in reducing distress in previous research. For instance, Smeets, Neff, Alberts, and Peters (2014) examined the impact of self-compassion training in a sample of college students over a three-week period. Self-compassion training in this study consisted of attending teachings on self-compassion as well as engaging in homework exercises. It was found that self-compassion training led to significantly higher increases in optimism and self-efficacy, as well as significantly more decreases in rumination in comparison to the control group. Shapira and Mongrain (2010) recruited participants from the community through online advertisements, and examined several treatment conditions (i.e., self-compassion writing, optimism writing, early memory writing). The self-compassion condition required participants to think about a recent event that upset them and write a self-compassionate letter to themselves about that situation. Participants were asked to do this every day for seven days. They were instructed to think about what they would say to a friend in the same situation, and write whatever they needed to hear to feel nurtured and soothed in their letters to themselves. Results from this study showed that the one-week practice led to increases in emotional well-being, which were sustained over time (Shapira & Mongrain, 2010). Specifically, the self-compassion group was less depressed up to three months post-intervention compared to the other groups (i.e., optimism and early memory writing).

Incorporating self-compassion exercises into an at-risk youth program has yet to be examined. While changes to the aforementioned interventions may be needed to

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accommodate education and literacy level in an at-risk sample (i.e., simple instructions, writing short affirmations instead of letters, using a computer format, using self-compassion drawings, self-compassionate dialogue practice, etc.), self-compassion interventions could be implemented with support from staff at CFY. Programs such as the Lilly Building or Train for Trades, where the youth are easily accessible (i.e., do not come and go like at other programs), and have more access to support from staff, may be an appropriate starting place. As such, teaching about self-compassion (e.g., workshops) or self-compassion writing/drawing exercises may be a manageable first intervention in self-compassion for an organization like CFY. Through the implementation of such interventions in this population, it is hoped that information regarding changes in self-compassion will be gathered, and the impact on psychological distress and emotional well-being can be explored.

Directions for Future Research

The present study points to several avenues for future research. First, research examining the development of self-compassion, especially in at-risk youth populations where attachment insecurity and chaotic/violent family environments are common is needed. This research could test the theories of Pepping et al. (2015) regarding the relationship between attachment experiences and self-compassion. An aim of this research could also be to explore whether maltreatment and street-involvement impede the development of self-compassion in these youth. Further exploration of differences in self-compassion between youth who experience adverse life events and are homeless, versus more normative youth samples would also be beneficial.

Second, evaluating the effectiveness of compassion-focused interventions with at-

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risk samples would be a valuable avenue for future research. Self-compassion training could be implemented with an experimental design to examine whether self-compassion can be enhanced in youth with high levels of attachment insecurity. In addition, this experimental research could examine whether increases in self-compassion were related to improvements in psychological distress. Such research may prove invaluable in designing interventions for at-risk youth programs.

Next, the attachment avoidance findings in the current study were interesting, and point to avenues for future research. Although evidence from the current study suggested that attachment avoidance was not associated with psychological distress in the at-risk youth sample, previous research has suggested that this relationship is more complex, and may not reflect a lack of distress (Fraley & Shaver, 1997; Wei et al., 2011). Rather, attachment avoidance behaviours (e.g., downplaying the importance of relationships, inflating self-worth and ability) may serve a protective function for these youth. A concern coming out of the current study is that this type of behaviour may cause attachment avoidant youths' needs to be overlooked by staff, as developing connections with these individuals may be more difficult. There has been limited research on attachment styles/orientation in at-risk youth, highlighting an important area for future research. This future research could examine in more detail how attachment avoidance is associated with self-compassion, and psychological distress in at-risk youth, as well as examine how it may impact other variables, such as help-seeking behaviour. Future research and knowledge about this complex relationship will deepen theoretical understanding, and inform the development of interventions that would be most helpful for these youth.

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In summary, the results of the current study provide a significant contribution to the existing research literature in the areas of attachment, childhood maltreatment, psychological functioning, and self-compassion in at-risk youth. This research provided an extensive description of the experiences of a sample of youth accessing programs within CFY, while also providing information about self-compassion in the lives of an at-risk and street-involved youth sample—an area which, to date, has not been examined. Given the adverse experiences of many of the youth using CFY services, making additional efforts to address these issues is essential. It is hoped that the present study will motivate the discussed future research in this area, as well as inspire those programs working with at-risk youth to continue to evaluate and improve existing services, as well as to develop new services for this vulnerable population.

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PREDICTING PSYCHOLOGICAL DISTRESS

Table 1

Youth Participant Profile: Characteristics of Participants (N = 51)

Item	Category	Frequency	Percentage
Sex	Male	30	58.8
	Female	21	41.2
Race	Caucasian	45	88.2
	Aboriginal	6	11.8
Academic/career	Currently in school	8	15.7
	Employed	19	37.3
	Unemployed	32	62.7
Highest level of education	Grade eight	3	5.9
	Grade nine	10	19.6
	Grade ten	13	25.5
	Grade eleven	9	17.6
	Grade twelve	15	29.4
	One year college	1	2.0
Self-reported experiences	ADHD	18	35.3
	Anxiety	43	84.3
	Depression	40	78.4
	Bipolar	7	13.7
	Psychosis	8	15.7
	Learning disability	15	29.4
	Suicide attempt	25	49
	PTSD	12	23.5

PREDICTING PSYCHOLOGICAL DISTRESS

Table 1

Youth Participant Profile: Characteristics of Participants (N = 51)

Item	Category	Frequency	Percentage
	Physical abuse	31	60.8
	Emotional abuse	33	64.7
	Sexual abuse	15	29.4
	Eating disorder	10	19.6
	Substance abuse	31	60.8
	Involved in sex work	5	9.8
Lifetime substance use	Alcohol	47	92.2
	Marijuana	45	88.2
	Rec. prescription drugs	30	58.8
	Rec. non-prescription	34	66.7
Family of origin	Consistent connection	27	52.9
	Early family breakup	27	52.9
	Single parent family	19	37.3
	Family violence	31	60.8
	Parent substance use	27	52.9
	Parent offending	21	41.2
	Low income home	34	66.7
Criminal justice history	Previously incarcerated	21	41.2
	On parole/probation	7	13.7
Child protection history	Parents in care	10	19.6
	Participant in care	25	49

PREDICTING PSYCHOLOGICAL DISTRESS

Table 1

Youth Participant Profile: Characteristics of Participants (N = 51)

Item	Category	Frequency	Percentage
Housing history	Inconsistent housing	25	49
	Staffed home placement	20	39.2
	Foster care	21	41.2
	Group home	20	39.2
	Emergency shelter	35	68.6
Current living	Bedsitter	6	11.8
	Apartment alone	5	9.8
	Apartment shared	16	31.4
	Lilly Building*	6	11.8
	Family	4	7.8
	Couch surfing	4	7.8
	Shelter	8	15.7
	Unsure	2	3.9
	Hidden homeless**	14	27.4

Note. *Lilly Building – affordable, longer-term housing for youth facing homelessness who are ready to begin individualized support programs.

** Hidden homeless - refers to the cumulative frequency and percentage of youth who identified as currently couch surfing, staying at a shelter, or were unsure of where they would stay that night (Raising the Roof, 2009).

PREDICTING PSYCHOLOGICAL DISTRESS

Table 2

Study Variables Means and Standard Deviations

	<i>M</i>	<i>SD</i>
Self-compassion (SCS)	2.74	.67
Avoidance score (ECR-R)	72.03	19.49
Anxiety score (ECR-R)	72.82	25.32
	71.07	49.48
Global severity index (GSI)	65.56	19.79
Child maltreatment (CTQSF)		
Physical neglect	10.37	4.21
Emotional neglect	14.33	5.50
Sexual abuse	8.07	5.59
Physical abuse	11.00	5.93
Emotional abuse	15.07	6.56

PREDICTING PSYCHOLOGICAL DISTRESS

Table 3

Cronbach's Alpha for Study Measures

	Number of items	Cronbach's Alpha (α)
Self-Compassion Scale (SCS)	26	.90
Experiences in close Relationships-Revised (ECR-R)	36	.91
<i>Anxiety scale on ECR-R</i>	18	.94
<i>Avoidance scale on ECR-R</i>	18	.90
Childhood Trauma Questionnaire (CTQSF)	28	.90
Brief Symptom Inventory (BSI)	53	.90

PREDICTING PSYCHOLOGICAL DISTRESS

Table 4

Skewness and Kurtosis Values

	Skewness		Kurtosis	
	Statistic	Standard Error	Statistic	Standard Error
Self-compassion	.21	.33	-.91	.65
Psych distress	.45	.33	-.90	.65
Childhood maltreatment	.69	.33	.47	.65
Attachment anxiety	-.36	.33	-.23	.65
Attachment avoidance	-.29	.33	-.95	.65

PREDICTING PSYCHOLOGICAL DISTRESS

Table 5

Means, Standard Deviations, t-Tests, Cohen's d for Study Measures by Sex

	Males (<i>n</i> = 30)		Females (<i>n</i> = 21)		<i>t</i> -test			
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>d</i>	<i>p</i>
Self-compassion	2.94	.62	2.45	.66	2.70	49	.76	.00
Psych distress	57.23	39.80	90.85	55.89	-2.51	49	-.69	.01
Child maltreat.	59.86	16.68	73.71	21.38	-2.59	49	-.72	.02
Att. anxiety	61.90	24.24	88.42	17.77	-4.27	49	-.52	.00
Att. avoidance	70.50	18.33	74.23	21.32	-.67	49	-.18	.50

PREDICTING PSYCHOLOGICAL DISTRESS

Table 6
Attachment Styles in Study Sample

	Frequency	Percentage
Secure	15	28
Insecure	37	72
<i>Preoccupied</i>	8	15
<i>Dismissing</i>	10	20
<i>Fearful (Disorganized)</i>	19	37

PREDICTING PSYCHOLOGICAL DISTRESS

Table 7

Means, Standard Deviations, t-Tests, Cohen's d for Study Measures by Employment

	Employed (<i>n</i> = 19)		Not employed (<i>n</i> = 32)		<i>t</i> -test			
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>d</i>	<i>p</i>
Self-compassion	2.64	.77	2.80	.61	-.83	49	-.23	.40
Psych distress	63.05	47.51	75.84	50.74	-.89	49	-.25	.37
Child maltreat.	65.57	18.88	65.56	20.60	.00	49	-.00	.99
Att. anxiety	79.05	24.82	69.12	25.26	1.36	49	.39	.17
Att. avoidance	70.00	23.41	73.25	17.05	-.57	49	-.16	.57

PREDICTING PSYCHOLOGICAL DISTRESS

Table 8

Means, Standard Deviations, t-Tests, Cohen's d for Study Measures by Education Status

	High school (<i>n</i> = 16)		Not complete (<i>n</i> = 35)		<i>t</i> -test			
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>d</i>	<i>p</i>
Self-compassion	2.66	.69	2.87	.63	-2.92	49	-.80	.05
Psych distress	77.06	50.73	68.34	49.40	.58	49	.16	.56
Child maltreat.	72.31	24.46	62.48	16.75	1.67	49	.47	.10
Att. anxiety	75.93	20.29	71.40	27.46	.59	49	.16	.55
Att. avoidance	78.12	20.75	69.25	18.53	1.52	49	.43	1.33

PREDICTING PSYCHOLOGICAL DISTRESS

Table 9

Means, Standard Deviations, t-Tests, Cohen's d for Study Measures by Family Connection

	Consistent (<i>n</i> = 27)		Disrupted (<i>n</i> = 24)		<i>t</i> -test			
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>d</i>	<i>p</i>
Self-compassion	2.65	.79	2.84	.51	-.99	49	-.28	.32
Psych distress	72.77	53.09	69.16	46.13	.25	49	.07	.79
Child maltreat.	68.33	22.29	62.45	16.44	1.05	49	.30	.29
Att. anxiety	74.44	28.08	71.0	22.26	.48	49	.13	.63
Att. avoidance	69.11	23.16	75.33	14.10	-1.14	49	-.32	.25

PREDICTING PSYCHOLOGICAL DISTRESS

Table 10

Means, Standard Deviations, t-Tests, Cohen's d for Study Measures by Incarceration History

	Incarcerated (<i>n</i> = 21)		No history (<i>n</i> = 30)		<i>t</i> -test			
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>d</i>	<i>p</i>
Self-compassion	2.68	.73	2.79	.64	-.55	49	-.15	.58
Psych distress	70.90	50.42	71.20	49.67	-.02	49	-.00	.98
Child maltreat.	63.04	20.72	67.33	19.26	-.75	49	-.21	.45
Att. anxiety	71.33	27.66	73.86	23.97	-.34	49	-.09	.72
Att. avoidance	73.80	20.15	70.80	19.27	.53	49	-.15	.59

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Table 11

Means, Standard Deviations, t-Tests, Cohen's d for Study Measures by Child Protection History

	In care (<i>n</i> = 25)		No history (<i>n</i> = 26)		<i>t</i> -test			
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>d</i>	<i>p</i>
Self-compassion	2.82	.69	2.67	.65	.82	49	.23	.41
Psych distress	61.28	46.20	80.50	51.56	-1.40	49	-.39	.16
Child maltreat.	62.40	13.37	68.61	24.32	-1.12	49	-.32	.26
Att. anxiety	69.72	22.30	75.80	28.03	-.85	49	-.24	.39
Att. avoidance	69.96	17.78	74.03	21.17	-.74	49	-.21	.46

PREDICTING PSYCHOLOGICAL DISTRESS

Table 12

Means, Standard Deviations, t-Tests, Cohen's d for Study Measures by Current Homeless Status

	Homeless (<i>n</i> = 14)		Housed (<i>n</i> = 37)		<i>t</i> -test			
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>d</i>	<i>p</i>
Self-compassion	2.74	.63	2.74	.70	-.01	49	-.00	.98
Psych distress	65.85	51.01	73.05	49.45	-.45	49	-.12	.65
Child maltreat.	59.71	16.14	67.78	20.77	-1.30	49	-.37	.19
Att. anxiety	66.28	27.04	75.29	24.56	-1.13	49	-.32	.26
Att. avoidance	75.35	16.12	70.78	20.69	.74	49	.21	.46

PREDICTING PSYCHOLOGICAL DISTRESS

Table 13

Correlations Between Study Variables

	Att. anxiety	Att. avoidance	Self-compassion	Psych distress
Maltreatment	.64**	.18	-.41**	.59**
Att. anxiety		.17	-.56**	.60**
Att. avoidance			-.48**	.00
Self-compassion				-.33*

Notes: * $p < .05$; ** $p < .01$; Att. Anxiety = Attachment Anxiety, Att. Avoidance = Attachment Avoidance, Sym.

PREDICTING PSYCHOLOGICAL DISTRESS

Table 14

Predictors of Psychological Distress in Hierarchical Regression Analyses

Model	R^2	ΔR^2	F	df1	df2	Beta	t	Sig.
1	.11	.11	6.31	1	49			.01*
Sex						.33	2.51	.01*
2	.44	.32	8.88	4	46			.00**
Sex						.02	.22	.82
Child maltreat.						.34	2.40	.01*
Attach anxiety						.38	2.28	.01*
Self-compassion						.03	.27	.78

Notes: * $p < .05$, ** $p < .01$

Figure 1. Dimensional Model of Adult Attachment, Shaver and Fraley (2010)

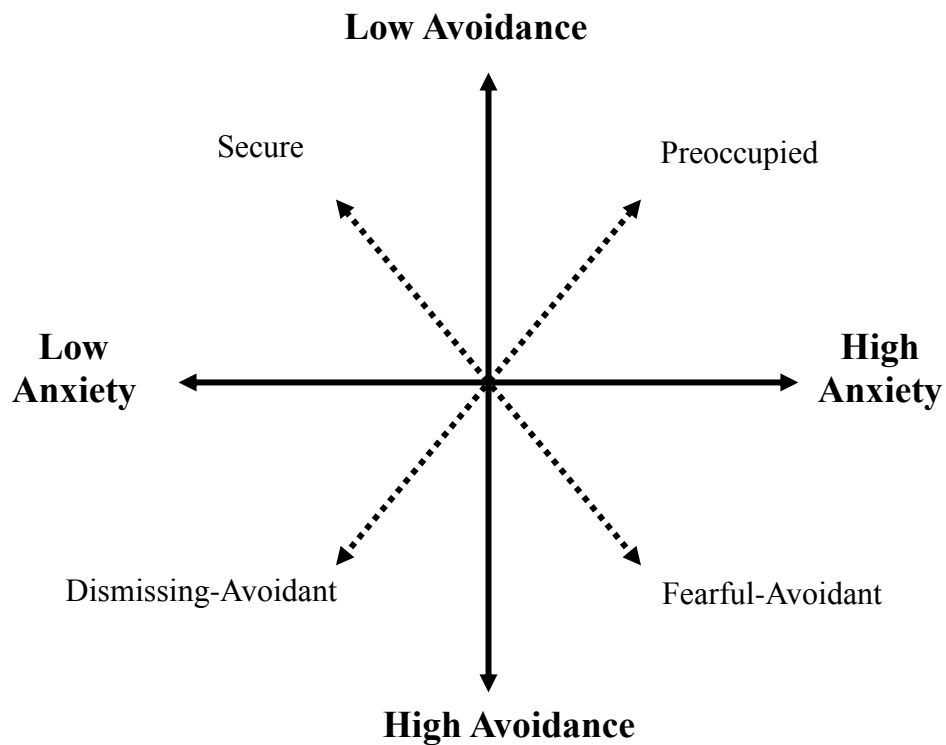
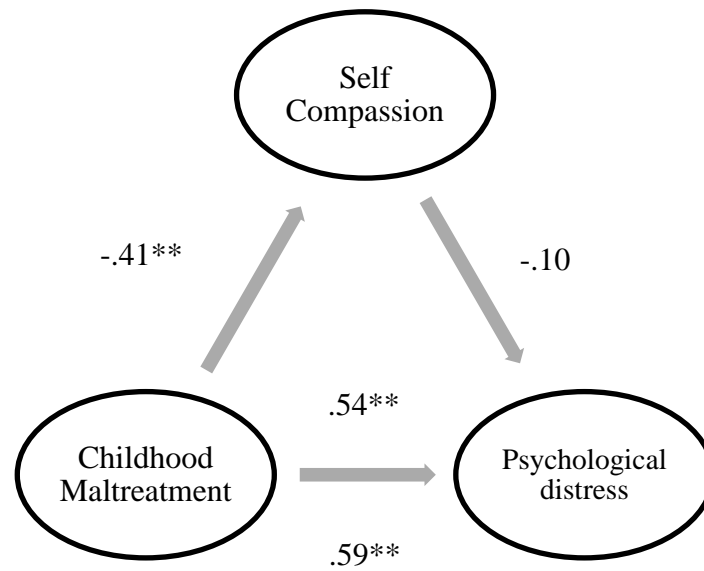


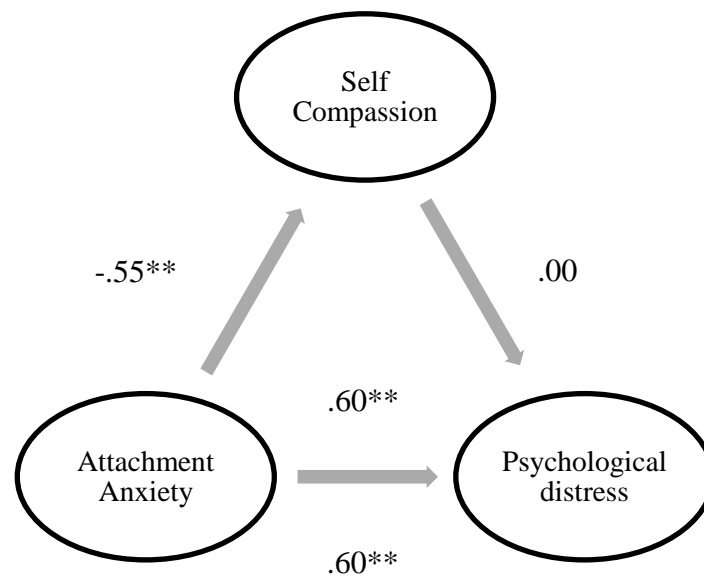
Figure 1. Model of adult attachment as described by Bartholomew and Horowitz (1991), based on internal working models of both the self and other; this model classifies attachment styles into two dimensions, or four categories. The four types of attachment are explained in terms of level of attachment anxiety and attachment avoidance (otherwise known as attachment orientation). Attachment orientation, as examined by the current study, is represented by the bold lines in the above figure.

Figure 2. Self-compassion as non-mediator of childhood maltreatment and psychological distress



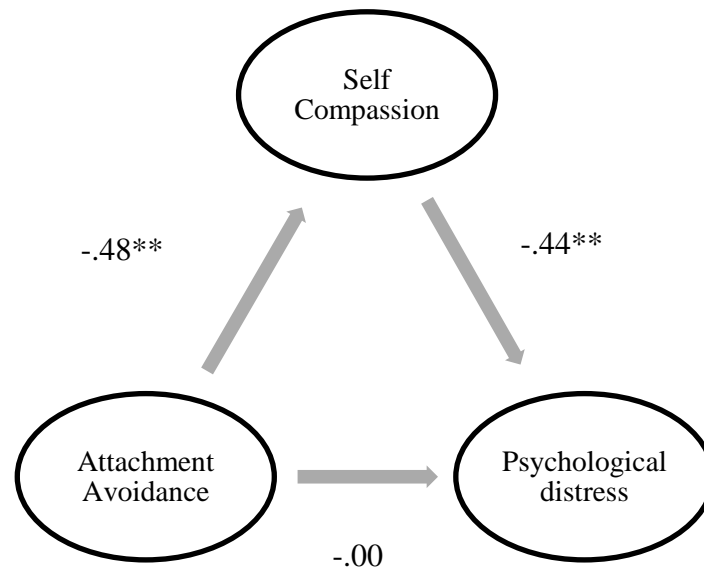
Note: $^{**}p < .01$

Figure 3. Self-compassion as a non-mediator of attachment anxiety and psychological distress



Note: $^{**}p < .01$

Figure 4. Self-compassion as a non-mediator of attachment avoidance and psychological distress



Note: $^{**}p < .01$

PREDICTING PSYCHOLOGICAL DISTRESS

Appendix A: Demographic Information Questionnaire (Youth Participant Profile)

Youth Participant Profile

Ice-Breaking Questions:

- 1) What made you decide to visit choices? Please explain.

- 2) How did you hear about Choices?

 - a. How long have you been involved with choices?

Demographic Information:

- 3) Gender: ☐ Male ☐ Female ☐ Transgendered ☐ Other (please specify) _____
- 4) Are you a visible minority? ☐ Yes ☐ No
- 5) Are you Aboriginal? ☐ Yes ☐ No
- 6) Age? _____ (Please specify in years)
(D.O.B: _____)

Parenthood:

- 7) Do you have any children? ☐ Yes ☐ No (How many? _____)
- 8) If yes to the previous question, do you have full or partial custody of your child(ren)? ☐ Full custody ☐ Partial Custody ☐ No Custody
- 9) If yes, do you receive parenting support from others? ☐ Yes ☐ No
 - a. If so, by whom? ☐ Spouse/Partner ☐ Parents/Family ☐ Friends
☐ Other (Please specify) _____
- 10) What type of financial parenting support are you receiving?
☐ Spousal Support ☐ Parents/Family ☐ HRLE ☐ CYFS
☐ Other (Please explain) _____

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Legal Status in Canada:

- 11) What is your legal status in Canada? ☐ Citizen ☐ Landed Immigrant
☐ Sponsored ☐ Immigrant ☐ Refugee Claimant

Living Situation:

- 12) What is your current living situation? ☐ Bed-sitter (alone) ☐ Bed-sitter (shared) ☐ Apartment (alone) ☐ Apartment (shared) ☐ Shelter ☐ Family ☐ Couch Surfing ☐ On the Street ☐ Other (Please explain)

- 13) Do you consider yourself to be participating in the “culture of the street” (i.e., developing “family” ties on the street, understanding the homeless community, engaging in the ‘economy’ of the street)?

☐ Yes ☐ No

- a. If so, please explain your involvement in street culture.

- b. If so, for how long?

☐ Under 3 months ☐ 3-6 months ☐ 6 months-1 year ☐ 1-2 years ☐ 2-3 years ☐ 3-4 years ☐ 4-5 years ☐ More than 5 years

Family of Origin:

- 14) Please check all that apply:

☐ Consistent Connection
☐ Disrupted Connection
☐ Early Family Break-up
☐ Single Parent Family
☐ Family Violence
☐ Substance Abuse/Addiction in the Family
☐ History of Offending in Family
☐ Chaotic Home Environment
☐ Low Income/Unemployment in Family
☐ Death in Family
☐ Other (Please Explain) _____

- 15) Were either of your parents in the care of CYFS? ☐ Yes ☐ No

- a. If so, who? ☐ Mother ☐ Father ☐ Both Mother and Father

- 16) Prior to your contact with Choices for Youth, have you ever been in the care of CYFS? ☐ Yes ☐ No

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Housing History:

17) Please check all that apply:

- ☐ Inconsistent family housing situation
- ☐ Staffed Home Placements (How many? ____ (number))
- ☐ Foster Care Placements (How many? ____ (number))
- ☐ Group Home Placements (How many? ____ (number))
- ☐ Emergency Shelter (Number of times ____)
- ☐ Difficulty maintaining housing
- ☐ Other (Please explain) _____

Education History:

18) Are you currently attending school? ____ Yes ____ No

a. If so, what level/grade? _____

19) If no, did you drop out? ____ Yes ____ No

a. If yes, when? _____

b. What was the last grade attended? _____

20) What is this highest level you have completed?

- ☐ Grade School (Please name the specific grade _____)
- ☐ Adult Basic Education (Please name institution attended _____)
- ☐ Post-Secondary (Please name institution attended _____)
- ☐ Other (Please specify _____)

21) While in school, did you receive any additional support? ____ Yes ____ No

a. If yes, what kind of support did you receive?

- ☐ Special Education Classes
- ☐ Individualized Education Program
- ☐ Teachers Assistant/Aide
- ☐ Other (Please Specify _____)

22) Do you have difficulty reading? ____ Yes ____ No

23) Do you have difficulty in expressing yourself in writing? ____ Yes ____ No

24) Have you ever been diagnosed with a learning disability? ____ Yes ____ No

a. If so, please specify type (if known) _____

25) Have you ever been diagnosed with Attention Deficit Hyperactivity Disorder (ADHD)? ____ Yes ____ No

a. If so, please specify type (if known) _____

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Health and Wellness Issues:

26) Have you ever suffered from any of the following? (Please check all that apply):

- ☐ Anxiety
- ☐ Depression
- ☐ Bipolar Disorder
- ☐ Psychosis (i.e., schizophrenia)
- ☐ ADHD
- ☐ Suicidal Ideation
- ☐ Suicidal Attempts
- ☐ PTSD
- ☐ Trauma
- ☐ Physical Abuse
- ☐ Emotional Abuse
- ☐ Sexual Abuse
- ☐ Rape
- ☐ Eating Disorder
- ☐ Substance Abuse
- ☐ Other (Please specify _____)

27) Were you formally diagnosed with any of the above by a health professional?

- ☐ Yes ☐ No
- a. If so, what is your diagnosis? _____
- i. Who diagnosed you? (Specify professional) _____

28) Are you currently on any medication? ☐ Yes ☐ No

- a. If yes, for what purpose (i.e., pain management, depression, anxiety)? _____
- b. If yes, what type of medication (if known)? _____

29) Have you ever used alcohol? ☐ Yes ☐ No

- a. If yes, how often?
- ☐ Daily ☐ 5-6 times a week ☐ 2-4 times a week ☐ Weekly
- ☐ Monthly ☐ Less than Monthly
- b. Do you currently use alcohol? ☐ Yes ☐ No
- i. If yes, how often?
- ☐ Daily ☐ 5-6 times a week ☐ 2-4 times a week ☐ Weekly
- ☐ Monthly ☐ Less than Monthly

30) Have you ever used Marijuana? ☐ Yes ☐ No

- a. If yes, how often?
- ☐ Daily ☐ 5-6 times a week ☐ 2-4 times a week ☐ Weekly
- ☐ Monthly ☐ Less than Monthly

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- b. Do you currently use marijuana? ___ Yes ___ No
i. If yes, how often?
___ Daily ___ 5-6 times a week ___ 2-4 times a week ___ Weekly
___ Monthly ___ Less than Monthly

- 31) Have you ever used prescription drugs recreationally? ___ Yes ___ No
a. If yes, how often?
___ Daily ___ 5-6 times a week ___ 2-4 times a week ___ Weekly
___ Monthly ___ Less than Monthly
b. Do you currently use prescription drugs recreationally? ___ Yes ___ No
___ No
i. If yes, how often?
___ Daily ___ 5-6 times a week ___ 2-4 times a week ___ Weekly
___ Monthly ___ Less than Monthly

- 32) Have you ever used non-prescription drugs? ___ Yes ___ No
a. If yes, how often?
___ Daily ___ 5-6 times a week ___ 2-4 times a week ___ Weekly
___ Monthly ___ Less than Monthly
b. Do you currently use non-prescription drugs? ___ Yes ___ No
i. If yes, how often?
___ Daily ___ 5-6 times a week ___ 2-4 times a week ___ Weekly
___ Monthly ___ Less than Monthly

Sexuality/Sexual Orientation:

- 33) What do you consider your sexual orientation to be?
___ Heterosexual ___ Gay ___ Bisexual ___ Other (Please specify)

- 34) Have you ever felt discriminated against due to your sexual orientation?
a. If yes, where?

b. By whom?

- 35) Have you ever been bullied because of your sexual orientation?
a. If yes, where? _____
b. By whom? _____

- 36) How comfortable do you feel about your sexuality?
___ Very Uncomfortable

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- ☐ Uncomfortable
- ☐ Sometimes Comfortable
- ☐ Comfortable
- ☐ Very Comfortable

Employment/Income History:

- 37) Are you employed? ☐ Yes ☐ No
a. If yes, what type of job do you currently have? Please Specify

- 38) What are your sources of income? Check all that apply.
☐ HRLE
☐ Youth Services
☐ Employment Insurance
☐ Employment
☐ Other (Please specify _____)
- 39) Prior to coming to the agency, describe your employment history:

- 40) Please describe the type of work you are interested in.

- 41) Are you interested in pursuing employment? ☐ Yes ☐ No

Counselling History:

- 42) Have you ever had counselling? ☐ Yes ☐ No
a. If yes, where? _____
- 43) Are you currently in counselling? ☐ Yes ☐ No
a. If yes, where? _____
- 44) If you have engaged/are currently engaged in counselling, what are the identified issues? Please specify.

- 45) Are you interested in seeking counselling? ☐ Yes ☐ No

Criminal Justice System:

- 46) Have you ever been incarcerated (in jail)? ☐ Yes ☐ No

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47) Are you currently involved with the criminal justice system? ____Yes ____No

48) Have you ever been on parole or probation? ____Yes ____No

49) Are you currently on parole or probation? ____Yes ____No

Sex Trade/Sexual Exploitation:

50) Have you ever been involved in the sex trade or been sexually exploited?

____Yes ____No

a. If yes, for how long?

____Less than one year ____2-5 years ____More than 5 years

51) Are you currently involved in the sex trade or been sexually exploited?

a. If yes, for how long?

____Less than one year ____2-5 years ____More than 5 years

52) Have you ever been involved in survival sex (i.e., in exchange for food, drugs, or a place to stay)? ____Yes ____No

Anger/Impulse Control:

53) Has being angry ever caused you problems? ____Yes ____No

a. If yes, in what areas of your life?

____Home

____School

____Work

____Relationships

____Legal

____Other (Please specify. _____)

Social:

54) How comfortable do you feel in social settings?

____Extremely Uncomfortable

____Very Uncomfortable

____Sometimes Comfortable

____Very Comfortable

____Extremely Comfortable

55) How often do you go out socially?

____Less than once a week

____Once a week

____2-3 times a week

____4-5 times a week

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___Daily

56) Do you have a friend you consider to be close? ___Yes ___No

a. Please explain what you mean by close.

57) Do you ever feel lonely? ___Yes ___No

Other Issues:

58) Do you have a positive role model? ___Yes ___No

a. If yes, who? _____

59) How self-confident do you feel on a scale of 1 to 10, with 1 representing 'Extremely Unconfident' to 10 representing 'Extremely Confident'? _____

60) How good do you feel about yourself on a scale of 1 to 10, with 1 representing 'Not Very Good' to 10 representing 'Very Good'? _____

61) Do you feel you have healthy relationships with others? ___Yes ___No

a. How do you know they are healthy? Please explain.

Closing Remarks:

62) What are the three top challenges, issues, or needs that would you like Choices for Youth to help you address?

1. _____

2. _____

3. _____

63) How motivated are you to make changes in your life on a scale of 1 to 10, with 1 representing 'Extremely Unmotivated' to 10 representing 'Extremely Motivated'? _____

64) What are your strengths? _____

65) Is there anything you feel we missed during this interview?

66) Final Comments:

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Appendix B: Self-compassion Scale (Neff, 2003a)

HOW I TYPICALLY ACT TOWARDS MYSELF IN DIFFICULT TIMES

Please read each statement carefully before answering. To the left of each item, indicate how often you behave in the stated manner, using the following scale:

Almost Never

Almost Always

1

2

3

4

5

- _____ 1. I'm disapproving and judgmental about my own flaws and inadequacies.
- _____ 2. When I'm feeling down I tend to obsess and fixate on everything that's wrong.
- _____ 3. When things are going badly for me, I see the difficulties as part of life that everyone goes through.
- _____ 4. When I think about my inadequacies, it tends to make me feel more separate and cut off from the rest of the world.
- _____ 5. I try to be loving towards myself when I'm feeling emotional pain.
- _____ 6. When I fail at something important to me I become consumed by feelings of inadequacy.
- _____ 7. When I'm down and out, I remind myself that there are lots of other people in the world feeling like I am.
- _____ 8. When times are really difficult, I tend to be tough on myself.
- _____ 9. When something upsets me I try to keep my emotions in balance.
- _____ 10. When I feel inadequate in some way, I try to remind myself that feelings of inadequacy are shared by most people.
- _____ 11. I'm intolerant and impatient towards those aspects of my personality I don't like.
- _____ 12. When I'm going through a very hard time, I give myself the caring and tenderness I need.
- _____ 13. When I'm feeling down, I tend to feel like most other people are probably happier than I am.

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- _____ 14. When something painful happens I try to take a balanced view of the situation.
- _____ 15. I try to see my failings as part of the human condition.
- _____ 16. When I see aspects of myself that I don't like, I get down on myself.
- _____ 17. When I fail at something important to me I try to keep things in perspective.
- _____ 18. When I'm really struggling, I tend to feel like other people must be having an easier time of it.
- _____ 19. I'm kind to myself when I'm experiencing suffering.
- _____ 20. When something upsets me I get carried away with my feelings.
- _____ 21. I can be a bit cold-hearted towards myself when I'm experiencing suffering.
- _____ 22. When I'm feeling down I try to approach my feelings with curiosity and openness.
- _____ 23. I'm tolerant of my own flaws and inadequacies.
- _____ 24. When something painful happens I tend to blow the incident out of proportion.
- _____ 25. When I fail at something that's important to me, I tend to feel alone in my failure.
- _____ 26. I try to be understanding and patient towards those aspects of my personality I don't like

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Appendix C: Experiences in Close Relationships Scale-Revised (Fraley, Waller, & Brennan, 2000)

Experiences in Close Relationships Scale-Revised

Instructions: The statements below concern how you feel in relationships and friendships with others. We are interested in how you *generally* experience relationships, not just in what is happening in a current relationship. Respond to each statement by marking a number to indicate how much you agree or disagree with the statement using the scale below:

Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

- ____ 1. I'm afraid that I will lose the love of others.
- ____ 2. I often worry that others will not want to stay with me.
- ____ 3. I often worry that others do not really love me.
- ____ 4. I worry that others won't care about me as much as I care about them.
- ____ 5. I often wish that others feelings for me were as strong as my feelings for them.
- ____ 6. I worry a lot about my relationships.
- ____ 7. When others are out of sight, I worry that they might become interested in
someone else.
- ____ 8. When I show my feelings for others, I'm afraid they will not feel the same about
me.
- ____ 9. I rarely worry about others leaving me.
- ____ 10. Others make me doubt myself.
- ____ 11. I do not often worry about being abandoned.
- ____ 12. I find that other people don't want to get as close as I would like.

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- ___13. Sometimes other people change their feelings about me for no apparent reason.
- ___14. My desire to be very close sometimes scares people away.
- ___15. I'm afraid that once another person gets to know me, they won't like who I really am.
- ___16. It makes me mad that I don't get the affection and support I need from others.
- ___17. I worry that I won't measure up to other people.
- ___18. Others only seem to notice me when I'm angry.
- ___19. I prefer not to show another person how I feel deep down.
- ___20. I feel comfortable sharing my private thoughts and feelings with others.
- ___21. I find it difficult to allow myself to depend on others.
- ___22. I am very comfortable being close to others.
- ___23. I don't feel comfortable opening up to other.
- ___24. I prefer not to be too close to others.
- ___25. I get uncomfortable when others want to be very close.
- ___26. I find it relatively easy to get close to others.
- ___27. It's not difficult for me to get close to others.
- ___28. I usually discuss my problems and concerns with others.
- ___29. It helps to turn to others in times of need.
- ___30. I tell others just about everything.
- ___31. I talk things over with others.
- ___32. I am nervous when others get too close to me.
- ___33. I feel comfortable depending on others.
- ___34. I find it easy to depend on others.

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____35. It's easy for me to be affectionate with others.

____36. Other people really understand me and my needs.

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Appendix D: Childhood Trauma Questionnaire (Bernstein, Stein, Newcomb, Walker, Pogge, & Ahluvalia, 2003)

CTQ

Instructions

These questions ask about some of your experiences growing up as a child and a teenager. Although these questions are of a personal nature, please try to answer as honestly as you can. For each question, circle the dot under the response that best describes how you feel. If you wish to change your response put an X through it and circle your new choice.

Example of corrected response:

Original Response

Never True	Rarely True	Sometimes True	Often True	Very Often True
•	•	•	•	•

Changed Response

Never True	Rarely True	Sometimes True	Often True	Very Often True
•	•	•	•	•

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When I was growing up...	Never True	Rarely True	Sometimes True	Often True	Very Often True
1. I didn't have enough to eat.	•	•	•	•	•
2. I knew that there was someone to take care of me and protect me.	•	•	•	•	•
3. People in my family called me things like "stupid," "lazy," or "ugly."	•	•	•	•	•
4. My parents were too drunk or high to take care of the family.	•	•	•	•	•
5. There was someone in my family who helped me feel that I was important or special.	•	•	•	•	•
6. I had to wear dirty clothes.	•	•	•	•	•
7. I felt loved.	•	•	•	•	•
8. I thought that my parents wished I had never been born.	•	•	•	•	•
9. I got hit so hard by someone in my family that I had to see a doctor or go to the hospital.	•	•	•	•	•
10. There was nothing I wanted to change about my family.	•	•	•	•	•
11. People in my family hit me so hard that it left me with bruises or marks.	•	•	•	•	•
12. I was punished with a belt, a board, a cord, or some other hard object.	•	•	•	•	•
13. People in my family looked out for each other.	•	•	•	•	•
14. People in my family said hurtful or insulting things to me.	•	•	•	•	•
15. I believe that I was physically abused.	•	•	•	•	•
16. I had the perfect childhood.	•	•	•	•	•
17. I got hit or beaten so badly that it was noticed by someone like a teacher, neighbor, or doctor.	•	•	•	•	•
18. I felt that someone in my family hated me.	•	•	•	•	•
19. People in my family felt close to each other.	•	•	•	•	•
20. Someone tried to touch me in a sexual way, or tried to make me touch them.	•	•	•	•	•
21. Someone threatened to hurt me or tell lies about me unless I did something sexual with them.	•	•	•	•	•
22. I had the best family in the world.	•	•	•	•	•
23. Someone tried to make me do sexual things or watch sexual things.	•	•	•	•	•
24. Someone molested me.	•	•	•	•	•

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25. I believe that I was emotionally abused.	•	•	•	•	•
26. There was someone to take me to the doctor if I needed it.	•	•	•	•	•
27. I believe that I was sexually abused.	•	•	•	•	•
28. My family was a source of strength and support.	•	•	•	•	•

Appendix E: Recruitment Poster



PARTICIPANTS NEEDED!

You are invited to participate in a research study investigating attachment, mental health, as well as personal strengths and challenges. The information gathered will help organizations like Choices for Youth to enhance existing programs and develop new ones in order to provide the best possible service to young people.

**For participating, you will receive a
\$10 gift certificate to either Tim
Horton's or Dominion (your
choice)!!!!**

To sign up, please see Outreach staff to make an
appointment!
Thank you!

If you have any additional questions about the study, please contact:
Heather Quinlan PsyD Candidate, Memorial University at heather.quinlan@mun.ca

Appendix F: Informed Consent Form

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Informed Consent Form

Dear Participant,

You are invited to participate in research describing the characteristics of individuals who access the services of Choices for Youth, including past experiences, mental health, attachment and individual strengths. The current study is being conducted as partial fulfillment of a Doctorate in Psychology (PsyD) degree from Memorial University of Newfoundland, and is being completed under the supervision of Dr. Kellie Hadden.

DESCRIPTION: You are invited to participate in this research study on those accessing the services of Choices for Youth. If you choose to participate, you will be asked to complete an interview as well as four self-report measures. This will include questions that will ask for information pertaining to your age, gender, sexual orientation, housing history, family of origin, education history, health and wellness issues, employment history, counselling history, involvement with the criminal justice system, anger, and social life. Moreover, it will also involve questions concerning your family history, life experiences, personality and current struggles.

RISKS AND BENEFITS: It is not expected that participating in this study will entail any specific risk to you. However, there may be some risk that you would find some of the questions too personal or difficult. As the questions in this study are of a personal nature, if you feel uncomfortable at any time or for some other reason you do not feel as though you can complete the survey, you can stop answering the questionnaire at any time without penalty. You may also choose to skip any questions in which you do not feel comfortable in answering. By participating in the present study, you will be providing important information to help develop programming within Choices for Youth, and to ensure the organization meets the needs of its participants.

TIME INVOLVEMENT: The total time involvement will be approximately one hour.

REIMBURSEMENT: If you agree to participate, you will be eligible for one (1) gift card in which you will have a choice between Tim Hortons and Dominion. The gift card will have a value of \$10.00.

PARTICIPANTS' RIGHTS: If you have read this form and decide to participate, please understand that your participation in this study is completely voluntary and that you have the right to discontinue your participation and withdraw from the study at any point,

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without consequence. You have the right to refuse to answer particular questions. Your individual privacy will be maintained in all published or written data resulting from the study. All data collected will be kept completely confidential.

If you would like to discuss this research further and/or have any questions or concerns regarding the study, you may contact me, Heather Quinlan, directly via email at heather.quinlan@mun.ca or the project supervisor, Dr. Kellie Hadden at khadden@mun.ca.

By signing here you have indicated that you understand this information and that you agree to participate in the study.

I acknowledge that I have been informed of, and understand, the nature and purpose of this study and I agree to participate.

Signed: _____

Date: _____

If you have any questions concerning this study please contact the researchers:

Heather Quinlan, B.A. (Hons)

PsyD Candidate

Email: heather.quinlan@mun.ca

Dr. Kellie Hadden, PhD, C. Psych, R. Psych

Supervisor

Email: khadden@mun.ca

Appendix G: Choices for Youth Participant Consent Form

Choices for Youth Participant Consent Form



I agree to take part in a Youth Participant Profile interview for Choices for Youth. The purpose of the interview is to get a description of the young people who are served by the agency and the types of issues with which they struggle.

I understand that this information will be used to assist Choices for Youth to enhance existing programs and develop new ones in order to provide the best possible service to young people.

I understand that this information will be kept confidential and will be stored in a secure space within Choices for Youth.

I understand that non-identifying information may be used for future research. I consent to the use of this information in future research. YES NO

I acknowledge that I have been informed of, and understand, the nature and purpose of this interview and I agree to participate.

Signed: _____

Date: _____